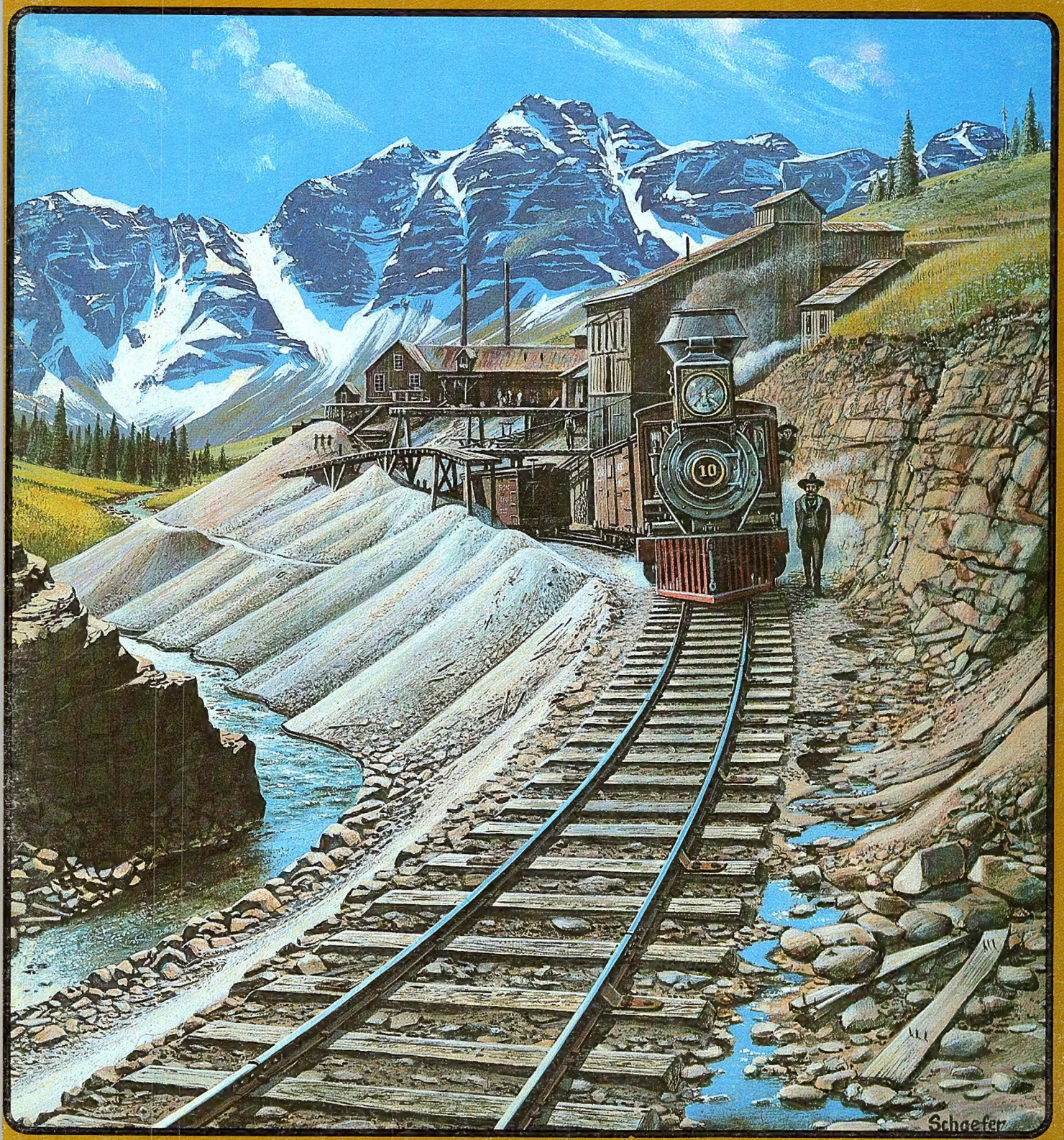
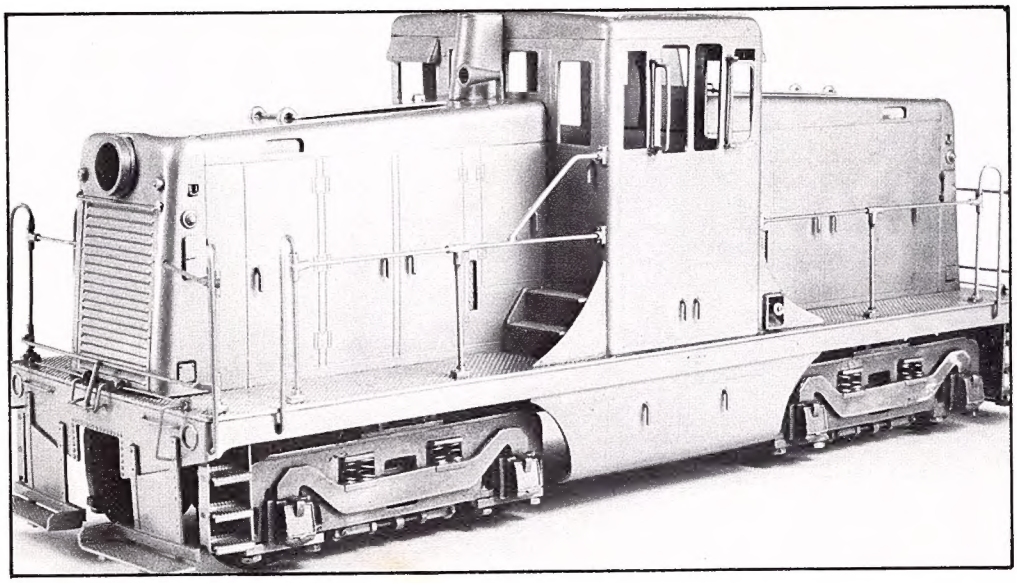
NARROW GAUGE AND SHORT LINE GAZETTE

Accurate Information for Fine Modelbuilding – Sep/Oct 1979 $2.25



GENERAL ELECTRIC
44 Ton Diesel Scale O

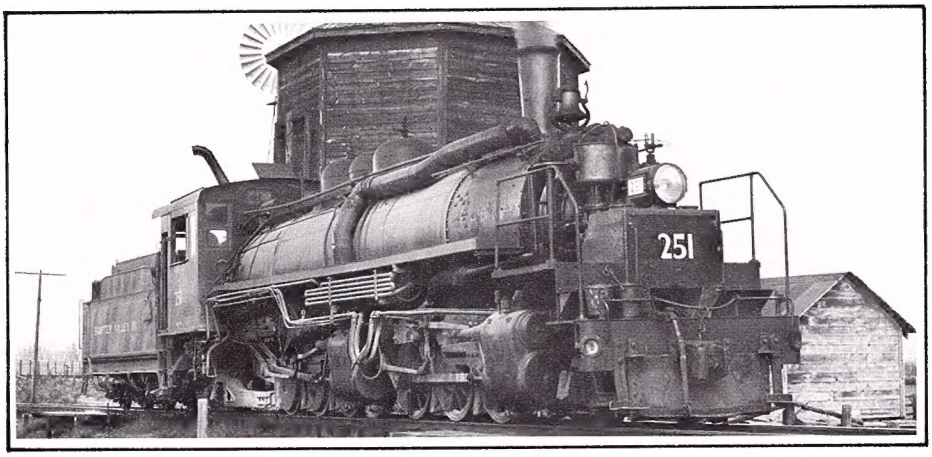


All U.S. made drive and power train. Featuring two motors with Delrin chain drive.
Wheels and gears by NWSL. Fully sprung trucks by Cal Scale. Assembled in our shop.

Coming from...

GOM scale model

The SUMPTER VALLEY 2-6-6-2 In On3



CB Royale ★★★★

Uintah Railroad No. 50 & 51, ended their days in the U.S., converted to tender engines & hauling on the S.V.
In the tradition of this Uintah No. 50 & 51, the unsurpassed craftsmanship of GOM brings you the Sumpter Valley 2-6-6-2
Casting detail by The Back Shop.

NARROW GAUGE MODELS OF SUPERIOR QUALITY

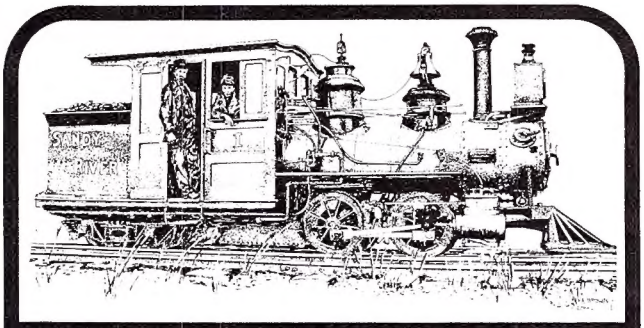
Custom NJ Brass

22 West Nicholai Street, Hicksville, N.Y. 11801

NARROW GAUGE AND SHORT LINE GAZETTE

Sept/Oct 1979 Volume 5 No. 4

(ISSN 0148-2122)



Robert W. Brown
Editor & Publisher

Irene L. Brown, Business & Office Manager
Sharon Olsen, Art Director

Gene E. Deimling, Associate Editor
Charles W. Getz, Associate Editor

Contributors:
Richard Andrews *Gordon North* *Robert Sloan*
Alan Armitage *Paul Scoles* *Ted Wurm*
Charles Givens *Lonnie Shay* *Irv Schultz*
Kelley Morris

The NARROW GAUGE and SHORTLINE GAZETTE is published bimonthly in March, May, July, September, November and January by **Gazette Publications**, One First Street, Suite C, P.O. Box 26, Los Altos, CA 94022.

SUBSCRIPTION RATES

United States Rates
2nd class mail ..... $12.50 per year
1st class mail ..... $20.00 per year
Foreign Rates (including Canada)
Surface ..... $15.00 per year
Air, Canada ..... $22.00 per year
Air, Europe ..... $25.00 per year
Air, Pacific ..... $29.00 per year

(U.S. funds please)

DEALER INFORMATION
Dealers write for dealer terms directly to **Gazette Publications,** P.O. Box 26, Los Altos, CA 94022 U.S.A.

GAZETTE PUBLICATIONS
One First Street, Suite C
P.O. Box 26
Los Altos, CA 94022
All correspondence should be sent to the above address.

Second Class postage paid at Los Altos, CA 94022 and at additional entry offices.

Typesetting by **Group 605.** Printed in U.S.A. by **Cal Central Press.** Copyright 1979, **Gazette Publications.** All rights reserved.

SPECIAL FEATURE

28 Military Light Railway Locomotives of the U.S. Army
Over there in 60 cm gauge.
by Richard Dunn

FEATURES

26 Great Freight '79
A special thanks.
by Bob Brown

32 An Auxillary "Sound" Car
Sneaky!
by Gordon North

40 Finescale On3 Rebuilding Techniques, Part IV
The Balboa C-19 becomes RGS #41.
by Kelley Morris

44 The Modelmakers Notebook
Color basics
by Alan Armitage

48 Rio Grande Bear Traps . . .
Bear Traps on the D&RGW?!!!
by Mallory Hope Ferrell

52 McGiffert Log Loaders
A self propelled picker upper.
by Bill Roy

56 Extra Narrow Gauge Junction
The Wiffletree & Kinky Creek Ry. Co.
by Dick Andrews

59 Painting Two Foot Cars
Lilliput paint schemes.
by Peter Barney

PLANS

34 Bellevue & Cascade Combination Car #7
by Albin Lee

35 Bellevue & Cascade Stock Car #163
by Albin Lee

35 Bellevue & Cascade Gondola Car #906
by Albin Lee

36 Bellevue & Cascade Combination Car #8
by Albin Lee

37 Bellevue & Cascade Rotary Snowplow #X900104
by Albin Lee

38 Bellevue & Cascade Caboose #055
by Albin Lee

39 Bellevue & Cascade Box Car #281
by Albin Lee

39 Bellevue & Cascade Gasoline Locomotive "OX"
by Albin Lee

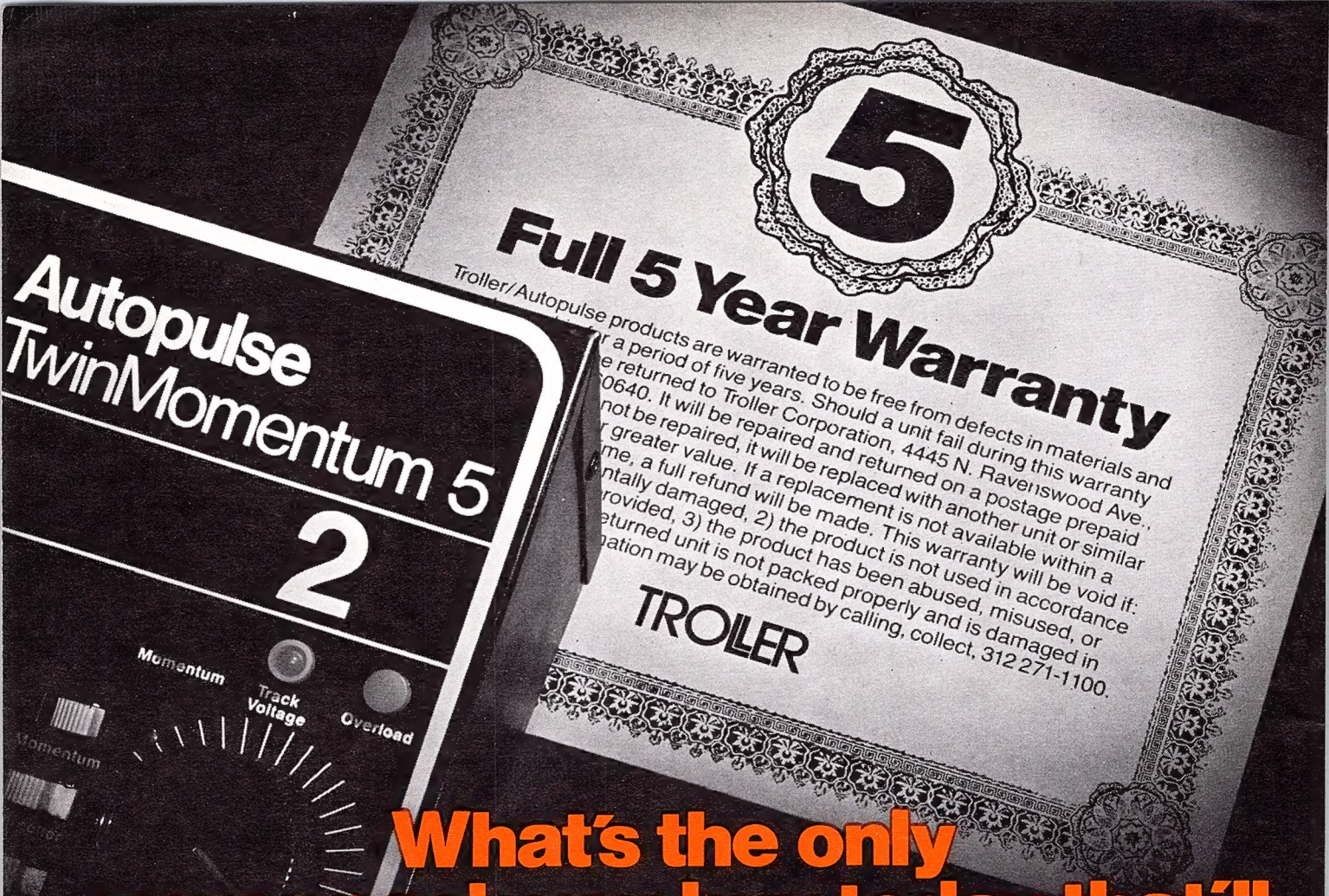
50 Colorado & Southern Bear Trap Smoke Stack
courtesy of John W. Maxwell

DEPARTMENTS

5 Robert's Ramblings
7 The Pigeon Hole
17 New In Review
22 Narrow Gauge Scene
62 Gazette Gallery
71 Book Reviews
84 Riptrack

COVER

Our cover was painted by Ed Schaefer and is based on several scenes found along the Silverton Northern. Ed told me that he hopes to build this scene some day on his own Red Mountain Southern. Notice the river, the mine tailings and the rock wall. These are all details worth incorporating in your next scene.


Autopulse
TwinMomentum 5
2
Momentum
Track Voltage
Overload
5
Full 5 Year Warranty
Troller/Autopulse products are warranted to be free from defects in materials and
a period of five years. Should a unit fail during this warranty
e returned to Troller Corporation, 4445 N. Ravenswood Ave.,
0640. It will be repaired and returned on a postage prepaid
not be repaired, it will be replaced with another unit or similar
greater value. If a replacement is not available within a
me, a full refund will be made. This warranty will be void if:
ntally damaged, 2) the product is not used in accordance
rovided, 3) the product has been abused, misused, or
eturned unit is not packed properly and is damaged in
ation may be obtained by calling, collect, 312 271-1100.
TROLLER

What's the only power pack you buy today that'll still be under warranty in 1984?

Troller, and only Troller.
Because every pack is covered by a Full 5 Year Warranty...the most comprehensive in the industry. And Troller backs up that warranty with a collect call factory Hot Line, and 48 hour turnaround factory service.

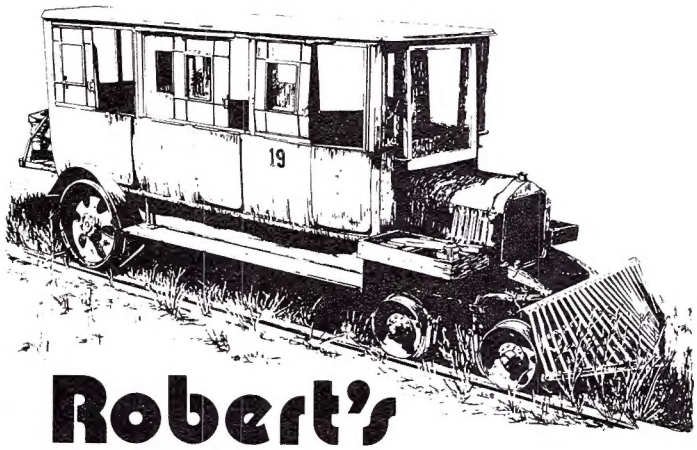
Troller's Full 5 Year Warranty is not arbitrary.
The packs Troller builds today are designed to meet the stringent requirements of Section 1505 of the Consumer Product Safety Commission, are UL and CSA safety listed, and, to a pack, must pass a battery of quality control tests assuring that you will receive superior product performance for many tomorrows to come.

The Troller Warranty, combined with features such as the patented Autopulse transistorized circuitry, unexcelled slow speed operation, Momentum control for realistic big train starts and coasting, full power for multiple engines and accessories, and complete power systems beginning at an unbelievable $13.95, obsolete all other power packs.

Autopulse

The transistorized power and control revolution in model railroading.

Troller Corporation, Chicago, Illinois 60640



Robert's Ramblings....

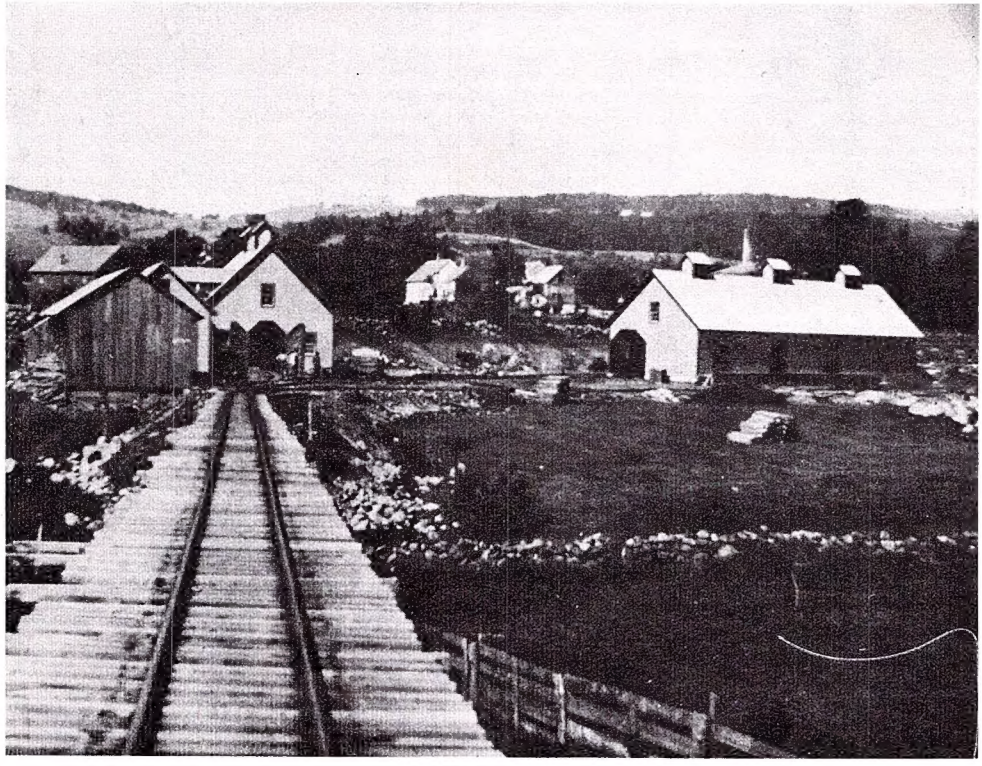
In the November issue of the **GAZETTE** I am going to start a new series of articles on how to build a finescale operating scene. I have chosen the Sandy River Railroad's Phillips, Maine yard and engine facility as the scene. The model is being built in On2 and I have it well underway. I want to mention this series now in the hope that you will decide to build an operating scene of your own as you follow the new series. I plan to write the articles in such a way that the techniques and information mentioned can be used in *any* scale and gauge. I hope the series will be of help and and will inspire many of you to try your hand at building a scene. So why not start thinking about the space you have available. Then select your favorite prototype scene or design a free-lance scene so you are ready to get started in November. Start now gathering all the data you can on the model you decide to build. Search the magazines and books and draw up some track plans so you are ready to start construction in November.

The reason I wanted to write this series is that I feel very strongly that if you are interested in quality models you probably will find it easier and more productive to limit your model building to a small, carefully done operating scene. The full basement layout is getting hard to build. The time needed to build fine models is hard to find in our busy world; the beautiful quality kits on the market have made the acquisition of fine models easier but they still take considerable time to assemble and finish. Another factor is the cost of the many kits and detail pieces which go into a fine large layout. In fact, the price of wood and other structural materials is a consideration. Unless you are well off the price of building a large layout can be prohibitive in these days of high inflation. The cost of brass locomotives has risen in the past few years and many of us can only afford to have a few pieces rather than the large stable of motive power needed to run a large layout.

As you know, my own philosophy is that fewer, but well done models are nicer than large numbers of average models. I enjoy working on a small segment of a whole railroad but doing it as detailed as I can. This is not for everyone but it seems that more and more modelers are moving in this direction in their model-building because of the large number of detail pieces available and the increase in fine quality craftsman type kits.

I plan to push the operating scene concept in the **GAZETTE** and I hope you will join me in sharing your latest scene. I have several scenes already built and it is amazing how fast you can accumulate operating scenes. If you limit your concept so the scenes fit together logically you may someday even achieve a large and highly detailed fine scale layout. Think about it.

Bob Brown



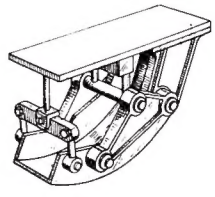
This photograph shows the scene I am modelling. This is the original facility at Phillips, Maine on the Sandy River Railroad. The photo was taken around 1879. My scene will be of a later date and will have some additional details which I will describe in November. ***Photo collection of Bob Brown***

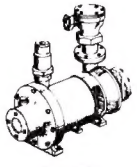
PRECISION SCALE Co.

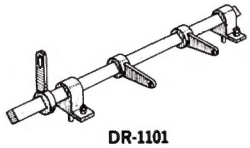
LOCOMOTIVES AND DETAILING PARTS

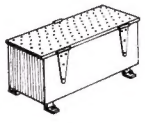
1120-A GUM AVE. WOODLAND, CA 95695 Phone: 916-662-6543

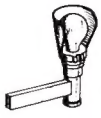
THE CHOICE OF DISCRIMINATING IMPORTERS AND MODELERS IN ALL SCALES!

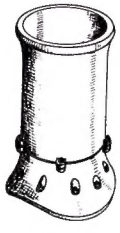

GH-4166


GH-4245

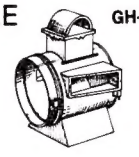

DR-1101


DR-1107


GH-4258

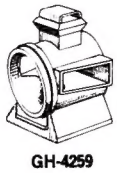

DR-1104

O SCALE

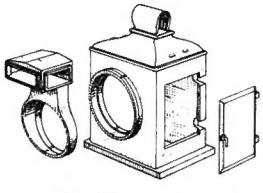

GH-4152

GH-4250

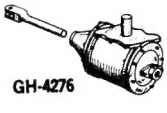
GH-4170

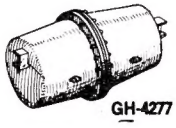

GH-4259

DR-1098

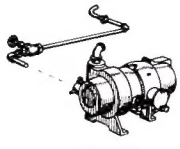

DR-1097

GH-4161


GH-4276


GH-4277

DR-1081


GH-4235

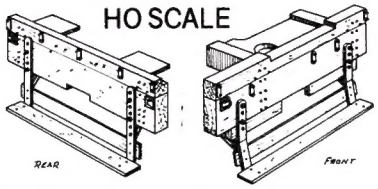
GH-4234

DR-1081 K-37 Piston valve guide ..... pr. 3.00
DR-1097 Baldwin headlight w/working access door and number board early arc type ..... ea. 3.50
DR-1098 Baldwin headlight bracket ..... ea. 2.75
DR-1104 K-36, K-37 Smoke stack ..... ea. 3.00
DR-1107 D&RGW Loco or tender tool box ..... ea. 2.75
DR-1101 K-27, K-36 Flanger actuator lever assembly ..... ea. 2.75
GH-4152 Baldwin Headlight, arc type, converted ..... ea. 2.75
GH-4161 High-base, working water hatch, round ..... ea. 2.25
GH-4166 Tender water scoop, Standard gauge ..... ea. 3.50

GH-4170 Cab seat, pedestal type ..... pr. 2.75
GH-4234 Pyle-National gauge lamp w/bracket ..... ea. 1.50
GH-4235 Pyle-National Turbo gen. w/plumbing & air control ..... ea. 2.75
GH-4245 Centrifugal cold water pump, large locos ..... ea. 2.75
GH-4250 Standard backhead gauge, 6-gauge cluster ..... ea. 2.00
GH-4258 Backhead gauge lamp w/shield ..... 2 pcs. 2.00
GH-4259 Early General Electric steel bottom headlight ..... ea. 3.50
GH-4276 Westinghouse A-B-A brake cylinder, freight ..... ea. 2.00
GH-4277 Westinghouse reservoir, AB type, two compartment ..... ea. 1.75

HO SCALE

HO-3098



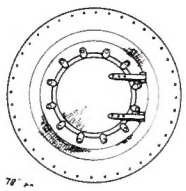
HO-3241

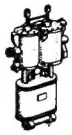
HO-3248

HO-3246

HO-3146

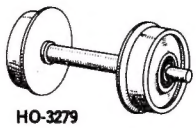
HO-3224

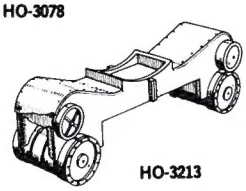

HO-3072

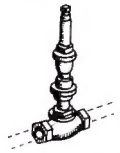

HO-3078

HO-3207

HO-3131


HO-3279


HO-3213


HO-3195

HO-3072 B&O Q-4 Boiler front ..... ea. 2.00
HO-3078 New York Air pump ..... ea. 2.00
HO-3098 D&RGW K-28 turret ..... ea. 2.00
HO-3131 D&RGW Shotgun stack, K-27, K-28 ..... ea. 1.75
HO-3146 Pyle-National Turbo gen. Type MO-6 ..... ea. 2.25
HO-3191 Air pump governor, single, cored .012" ..... ea. 1.00
HO-3207 Loco boiler, step, "up" mount ..... set of 4 1.50
HO-3213 D&RGW K-27 No. 455 cylinders ..... set 4.00
HO-3224 Large air reservoir, Shays ..... ea. 2.00
HO-3241 HO-HOn3 Westside Shay Front and rear end beams ..... pr. 4.75
HO-3246 Ajax brake wheel, brass ..... pr. 1.50
HO-3248 Ajax brake wheel housing, brass ..... pr. 1.50
HO-3279 HO wheelsets, insulated one side, plated 4 2.75

ALL DRAWINGS NOT NECESSARILY TO SCALE

NEW HO CATALOG! #3 alphabetical listings $3.00 plus $1.00 post. (Cal. res. add 6% tax)

Precision Scale Co. INCORPORATED
HO HOn3 S-Sn3 O-On3
MAKERS OF FINE INVESTMENT CASTINGS AND LOCOMOTIVES

master charge THE INTERBANK CARD OR VISA

SEE YOUR HOBBY DEALER, FIRST!

The Pigeon Hole

Dear Bob,

It was a pleasure to see your rave review of ***Railroads of Hawaii*** in the March/April issue. The first book on the common carriers, ***Hawaiian Railroads*** by the late John B. Hungerford, has been out of print for at least 10 years and there are few copies on the used book market. This new book by Gerald Best with its excellent photos and text serves to introduce the fascinating railroads of Hawaii to a new audience of railfans and modelers.

I do have a couple of comments on the Oahu Railway motor cars and the pineapple car mentioned in the review. The carbodies for the four motor cars were built in the Honolulu shops expressly for the M1-M4; they were not previously coaches, according to all the printed sources I've seen. Box car 382, mentioned on page 185 as a pineapple car, was in fact a stock car. Box cars 382 and 369 were converted to sheep and cattle cars in 1952 in order to handle an anticipated increase in stock traffic when the steamship Humuula was retired and the barging of livestock was undertaken. The facts on these two cars were revealed by H.F. Bonnell in his ***Hawaiian Rails of Yesteryear*** series in the Hawaiian Railway Society ***Akahele*** newsletter for March 1979.

Just as with our favorite mainland railroads there are new facts being discovered on Hawaii's common carrier and industrial lines that will not appear in any book. I would recommend to anyone now interested in Hawaiian railroads through reading the books by Conde and/or Best that he or she join the Hawaiian Railway Society. All members receive the monthly newsletter ***Akahele,*** the principal clearinghouse for new data on Hawaii's railroads. At present a highly accurate series on Hawaiian railroad history, written by H.F. Bonnell, the last Superintendent of the Oahu Railway, is appearing monthly in the ***Akahele.*** Our Historian, Bob Paoa, is constantly seeking new sources of photos and data on Hawaiian railroad history to preserve and share with the members through the ***Akahele.*** Members can also work on the Society's extensive collection of narrow gauge equipment when visiting Hawaii and dues go toward a drive to restore 12 miles of former Oahu Railway mainline.

Anyone interested in membership should write for information to V.P. Membership, Hawaiian Railway Society, P.O. Box 1096, Waipahu, Hawaii, 96797.

Mahalo and Aloha,

Mike Raymond
Life Member, Hawaiian Railway Society

Dear Mr. Brown:

It is difficult, with each issue of the **GAZETTE,** to see how it could be surpassed, but you nevertheless manage to make the next issue better than any that have gone before. That is a remarkable talent, and it is good to see it exercised in such fashion.

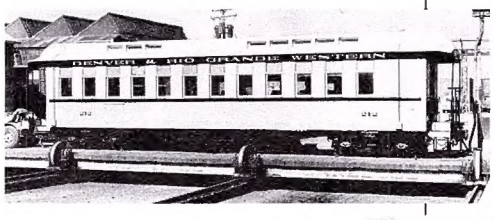
Perhaps the enclosed two photos, contact printed off my 5x7 negatives, will be of interest. I daresay some of your readers would be dismayed at seeing what has been done to the two little cars used for refreshment and snack service on the daily Silverton trains. Baggage 126 and Combo 212 have lost their distinctive lines; only the closed segment in the clerestory of the 212 gives a clue to its one-time use with cupola on the Pagosa Springs line.

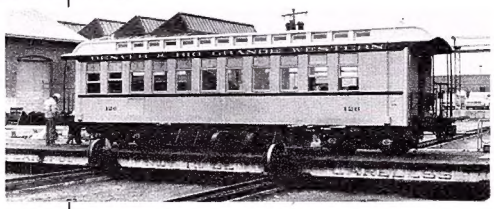
While it probably is a matter of little concern, I think it well to call to your attention the use of the terms "open" and "closed" vestibules (E&B Valley advertisement, page 12, May-June 1979 issue). "Vestibule", according to my dictionary, is "an ***enclosed*** entrance at the end of a railway passenger car." Therefore, there is no such thing as an "open vestibule," and the descriptive terms properly are "open platform" or "vestibule," according to the configuration of the carbody ends. This is nit-picking, perhaps, but I feel compelled to invite your attention for the sake of accurate presentation, for which you are striving so diligently.

With kindest regards and best wishes.

Very sincerely,

Jackson C. Thode
Retired Chief Budget Officer
D&RGW Railroad Co.





CABOOSE HOBBIES

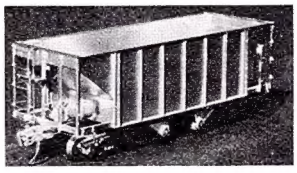
One of the Nations Largest Train Stores

HOn3 BRASS LOCOS

WS	Class A 20ton Shay.	225.00
NJCB	D&RGW C-21 #361..	160.00
KEY	D&RGW C-18 2-8-0.	119.95
WS	D&RGW C-25 2-8-0	125.00
WS	D&RGW K-27 or s/v	140.00
PFM	D&RGW K-27 2-8-2 latest run c/p RGS #461 ..	330.00
PFM	D&RGW K-37 2-8-2	375.00
BAL	D&RGW K-36 w/splw	200.00
WS	D&RGW K-28 2-8-2 latest run c/p D&RGW #473	450.00
WS	2 truck Shay.....	325.00
LAMB	C&S 2-6-0 (int)	145.00
NWSL	SP #1 Diesel.....	59.95
IHM	WP&Y Diesel	190.00

On3 BRASS

SS	D&RGW C-16 #268..	375.00
SS	D&RGW C-16 #278..	300.00
NWSL	Spartan 4-4-0	175.00
NWSL	Spartan 2-6-0	175.00
IHM	Baldwin 4-4-0 orig.	647.00
IHM	Mich-Cal #2 Shay ..	480.00
IHM	42t Climax w/caboos	740.00
SS	C&S/RGS #74 2-8-0	410.00
WS	D&RGW wheel&tie cr	25.00
WS	F&CC 0506 Caboose	50.00
WS	Conx 10 4 tank car..	70.00
NJCB	TCX 2 dome tank...	69.00
ADDM	TCX 2 dome tank...	129.00
ADDM	D&RGW 6500 steelflat	85.00
IHM	EBT Hopper.....	79.00
EM	D&RGW 3000 Box..	79.00
PSC	Swayne #2 Caboose.	60.00
HM	D&RGW 320 Coach .	120.00



IHM EBT Hopper $79.00

HOn3 SPECIAL
Robb D&RGW Drop Bottom Gondola these haven't been around for quite a while! ONLY $12.75ea

NARROW GAUGE BOOK SPECIAL

American Narrow Gauge ...	22.00
Colo RR Museum Rail Annuals	
Collected Early Vols.....	7.95
#9	9.75
Scenic Line of the World....	7.95
#11	9.75
#12 South Park.....	13.00
#13 F&CC	13.00
Logging RRs of the West....	8.75
Narrow Gauge in Rockies ..	10.25
Narrow Gauge Nostalgia....	6.99
Mineral Belt I	39.99
Mineral Belt II.....	39.99
Both Belts I & II	73.99
Rails Sagebrush & Pine	8.25
Rails in Mother Lode	11.88
Railroads of Hawaii	16.44
Willamette Loco	13.00

E&B VALLEY HOn3

RGS	0404 Caboose.....	13.95
	Flat Car	7.00
D&RGW	Coach open or closed vestibule .	14.95

HO SAW MILL SPECIAL

Keystone Bamdsaw Mill	53.95
Keystone Planing Mill.....	19.99
Keystone Danby Sawmill....	15.88
Keystone Shotgun Carriage..	7.88
Keystone 6' Band saw	7.88
D. Press Sutter's Sawmill...	15.00
Fine Scale Min. Sawmill ...	38.88
Suydam Sawmill w/int.	7.99
Suydam Barton Flats Mill ..	11.99
Muir Sawdust storage Bldg .	11.66
Evgn Hill Sawdust Burner...	16.95
Evgn Hill Woodsman Saw Set	11.66
Hetch Hetchy AH&D Skidder.	11.90
Hetch Hetchy RD-8 caterpillar	15.33

MAINLINE On3 SPECIAL
All Cars 9.75ea
While they last

Colo & NW	Gon
NCO	30' Box
F&CC	30' Box
D&RGW	30' Reefer
D&RGW	40' Reefer
Undec	30' Reefer
DSP&P	Tiffany Reef. unptd
C&S	29'6" Box
RGS	29'6" Box
C&S	Stock
RGS	Stock

CABOOSE HOBBIES, 610 15th St., DENVER, COLORADO, 80202 **PHONE 303/534-3377**

CHARGE CARDS Are Always Welcome: MASTER CHARGE + VISA + DINERS CLUB + AMERICAN EXPRESS + CARTE BLANCHE Advise of the card number and expiration date. SHIPPING INFORMATION: Foreign countries: we charge postage & handling. Specify air or surface mail. USA & Canada Orders over $25, NO CHARGE. (unless extremely bulky), under $25 add only $1. PO box shipments 85¢ extra, if possible furnish street address. 2 DAY AIR SERVICE to most states available at approx. 50¢ per lb. (90 day layaways available 4 = pmts., 1 ea month)

NARROW GAUGE & SHORTLINE

GAZETTE

Back issues available:

MARCH, 1977
MARCH/APRIL 1978
MAY/JUNE 1978
JULY/AUGUST 1978
SEPTEMBER/OCTOBER 1978
NOVEMBER/DECEMBER 1978
JANUARY/FEBRUARY 1979
MARCH/APRIL 1979
MAY/JUNE 1979
JULY/AUGUST 1979

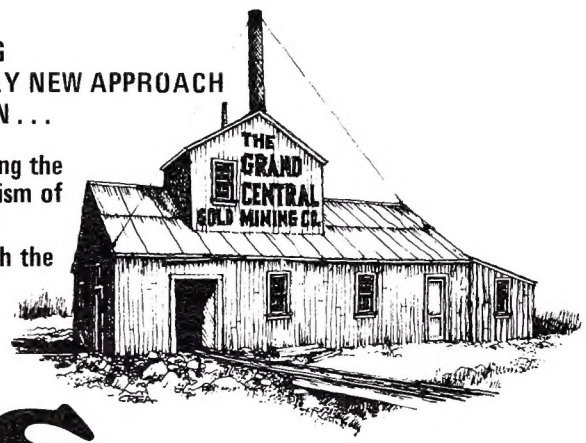
All back issure are $2.25 and are sent 2nd class postpaid. Please allow three to four weeks for delivery. Overseas $2.75 each surface.

Gazette Publications
P.O. Box 26
Los Altos, CA 94022

The Grand Central Gold Mine

INTRODUCING A COMPLETELY NEW APPROACH TO KIT DESIGN...

A method offering the unsurpassed realism of individual board construction with the ease of die-cut assembly!



The Structure Company

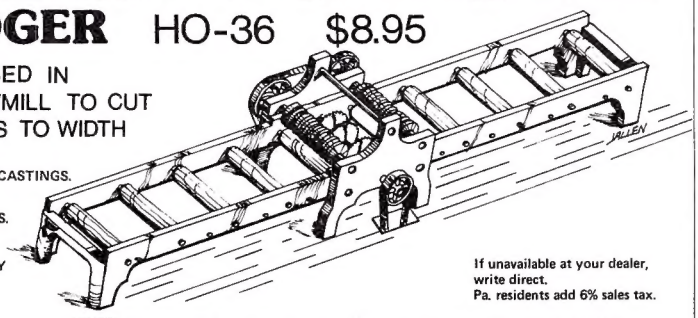
Quality structures in HO scale since 1975.
A No. 10 SSAE brings our latest brochures.

Box 6375 Washington Station, Reno, Nevada 89513

NEW! **MACHINE of the Month NO.3**

EDGER HO-36 $8.95

USED IN THE SAWMILL TO CUT BOARDS TO WIDTH



* 21 FINE PRESSURE CASTINGS.
* CAST SAW BLADES.
* EXPLODED ASSEMBLY DRAWING.
* BRASS WIRE.
* COMPLETE INSTRUCTIONS.

If unavailable at your dealer, write direct.
Pa. residents add 6% sales tax.

Keystone Locomotive Works 159 WHEATLEY AVENUE, NORTHUMBERLAND, PA 17857

NEW from FLOQUIL

Brush Up!
With New Floquil Model & Hobby Brushes.

Specially selected styles for the serious model craftsman.

Features red sable rounds down to an extra fine 10/0 super spotter.

Try the all new synthetic filament "Silver Fox" series.

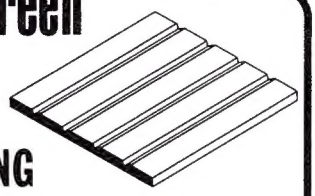
Gold Spikes
24 Carat Gold Plated Railroad Spikes

A high quality, beautifully plated full size railroad spike meticulously hand polished. Excellent for gift giving, mounting, display, or just enjoying for its intrinsic beauty. $19.95 plus $1.00 postage. Illinois residents add 5%.

Northern Lights Enterprises
P.O. Box R, Dept. NG
Wauconda, IL 60084

evergreen

CAR SIDING



2¼" and 3¼" SCALE SPACING
SCALE V-SHAPED GROOVES
HO and O scale sheets 10.5" wide
N and S scale sheets 6.2" wide
Send long SSAE for styrene sample and info.

1717 N.E. 92nd St. Seattle, WA 98115 **scale models**

New! from: PETER BUILT PBL Box 749 Chama, NM 87520 LOCO WORKS

PHONE 505-756-2419

SOUND MODs #3!*

Features REAL:
★★★ Taped Bell Sounds. . .
Taped Blower Sounds. . .
Taped Turbo-Generator Sounds. . .
Taped Air Pump Sounds. . .

Each Controllable Separately!
★★★ Easy (You Can Do It!) Installation!
(Requires drilling 4 holes, 1 wire hookup!)
Connects Directly to your PFM MKII!

You Get:
★★★ 1 Quadraphonic Deck and Custom Cabinets
Pre-wired (with mixer unit) Controls & Knobs
1 - Pre-recorded Endless Tape!

PROTOTYPE REALISM for only $129.50!

More info? Send SSAE To: PBL Box 749, Chama, NM 87520
*Sound Mods #'s 1 & 2 still available AND Recommended!

NEW from Polly S

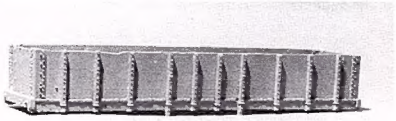
Water Reducible Colors

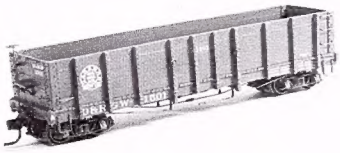
AT YOUR DEALER NOW! P208 Weathering Color Kit. For realistic weathered effects on all types of models. Contains six 5/8 oz. weathering colors — Dust, Grimy Black, Oily Black, Mud, Rust, Dirt. Easy to use, won't harm base paint finish. Thin with water for runs, streaks, washes, etc. Absolutely permanent when dry.

FLOQUIL-POLLY S COLOR CORP.
Amsterdam, New York 12010
An SPM Company

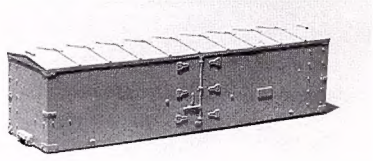
NEW - D&RGW HIGH SIDE GONDOLA - HOn3

Gondola Casting





Reefer Casting



Time Saver Kit
Heavy, one-piece epoxy body casting with stake and corner detail.
Addition of exterior parts provided gives a well detailed model.

#121 Kit - Less trucks/couplers $18.50
Kit - With Grandt trks/KD cpls 23.95
RTR - Painted & lettered 34.50

CLEAR CREEK MODELS
42 Greendale, St. Louis, MO 63121

Dealer inquiries invited.

Coming - D&RGW 30' Refrig., 6000 Series Flat

ONBOARD

THE NEW MODEL LOCOMOTIVE SOUND AND CONTROL SYSTEM

TEN CHANNEL SYSTEM

Miniaturized, battery powered sound synthesizers which fit in dummy diesels or steam tenders (HO or larger).

Miniaturized, tone controlled momentum throttles for mounting in powered units.

Walkaround controllers, each serving two channels.

DIESEL SOUND (available now)

Realistic exhaust, variable RPM.

Six-chime airhorn, chime combinations switch selectable.

Correctly tuned multi-note bell.

STEAM SOUND (available fall, '79)

Optically synchronized exhaust.

Three-chime steam whistle with steam hiss and pitch modulation.

Authentic sounding bell.

FOR TEN MINUTE CASETTE RECORDING; MANUAL WITH THOROUGH DESCRIPTION OF SYSTEM; COUPON GOOD FOR $5.00 DISCOUNT ON PURCHASE OF STARTER SET:

Send $5.00 to KELLER ENGINEERING
Box 1118
Saratoga, CA 95070

S SCALE

Standard Gauge Arch Bar Sprung trucks with code 110 wheels. Will common frog with narrow gauge. 42" drivers too. SSAE for details.

MINIATURE MACHINE
16041 PENN AVE.
SAN LORENZO, CA. 94580

CONCEPT CLASSIC DETAILS & PHOTOS

PROUDLY PRESENTS

WEST SIDE....

Narrow Gauge in the Sierra
by Mallory Hope Ferrell

320 pages over 400 Black and White photos, 16 PAGES OF COLOR - including paintings by Mike Pearsall, Howard Fogg, and Jim Finnell.

Maps, Plans, Detailed car rosters. Scale Drawings/drawings by California Short Line Historical Society and Ted Schnepf.

ALSO 100 old time photographs, most never before published, including may early Hetch Hetchy and Yosemite Valley. Railroad - WEST SIDE Flume and Lumber Co.

GREAT PHOTOGRAPHY BY:

John S. Anderson, Richard Kindig, Richard Steinheimer, Richard F. Thomas, Donald Duke, Glenn Beier, Gary G. Allen, Jim Wren, and many others.

RESERVE YOURS NOW!

Publisher PFM

Price $29.50
Available on or before Oct. 1st, 1979
Prepublication price to be announced
Order from:

CONCEPT CLASSIC DETAILS & PHOTOS

P.O. Box 749 • South Lake Tahoe, California 95705
Cal Res. add 6% states tax

Dealer inquiries invited

VISA

Two very special kits.

One in **HO** and the other in **O.** Special because the prototype upon which they are based has never before been commercially available. Special because of our pioneering construction design techniques. Nine Hydrocal castings from our original hand carved patterns form the basis of each kit. Both versions have cast completely shingled tower roofs for ease of construction. They also feature towers that are easily hollowed with a few drops of acetone. Grandt details, including a stove and baggage wagon, Kappler wood, corrugated roofing, complete detailed plans and instructions, and a color photo are included. As a special bonus we're adding baggage to detail the platform. Limited run.

Rubbles Depot . . . . . HO-117 $34.95 or O-117 $49.95

California residents please add 6% sales tax. Post paid.

Thomas A. Yorke Ent.
P.O. Box 65
Sunland, CA 91040

the final 200... ¼" Gunnison Depot

We are very pleased to make available another 200 ¼" scale Gunnison, Colorado South Park depots for release mid-fall 1979. No further production beyond these 200 kits will be made for at least two years. The reviews in the GAZETTE and September '79 MODEL RAILROADER detail the fine features of this superb model structure: wall castings formed from individual stones, custom windows and doors (even the screen door) by GRANDT LINE, individual board pre-cut platform, detailed roof underside and our unique MASTERWOOD SHINGLES with self-adhesive backing on real hardwood veneer.

One of the best features of the 2nd series of Gunnison Depot kits is the price: it's still at the 1978 price of $49.50 — an outstanding value! Reserve early at your favorite dealer or direct.

now—Masterwood II ¼" scale shingles!

We challenged the fine folks who make the veneer for our original MASTERWOOD SHINGLES to produce the thinnest possible veneer capable of die-cutting into shingle strips — and they succeeded!

Now we proudly present **MASTERWOOD II,** real hardwood veneer and completely die cut like original MASTERWOOD, but only 1/72" (.013) thick! To maintain absolute minimum thickness, MASTERWOOD II is applied with contact or rubber cement instead of having adhesive film back. Shingle strips are easily curved for application in difficult areas. MASTERWOOD II is perfect for modeling the D&RG's "elaterite" roofing material, such as on Durango Press' water tank.

MASTERWOOD II: two 5x10 sheets with instructions, $4.50
★ look for the yellow label, available fall '79.

ORIGINAL MASTERWOOD: two sheets still only $3.50
★ look for the blue label at your dealers now.
★ a number of model suppliers have selected MASTERWOOD for use in their fine products

Model Masterpieces Ltd.

Designers and Manufacturers of Fine Scale Models

P. O. Box 1634 • Englewood, Colorado 80150

¼" PROJECTS NOW UNDERWAY:
RGS - C&S FREIGHT CARS
DURANGO 65' STEEL TURNTABLE
C&S 2 STORY SECTION HOUSE

GW

THE LITTLE DEPOT

THE NARROW GAUGE SPECIALISTS EXTRAORDINAIRE

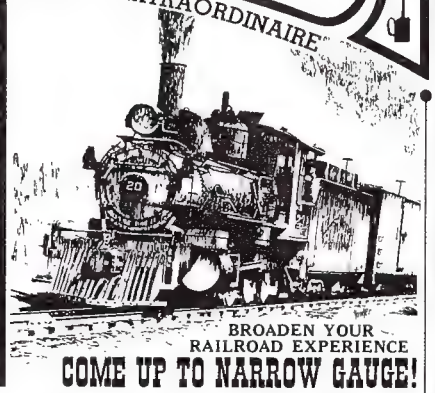
EXPERT ADVICE FOR FINE MODEL BUILDING

MICRO MOTORS and GEAR HEADS plus most all craftsmen kits and supplies. WE NOW ACCEPT MAIL ORDERS!

Drop in for our Fri. nite Bull Sessions.

THE LITTLE DEPOT
AT HOBBY CITY
DAN and JAN BRADLEY owners
1238A S. Beach Blvd. • Anaheim, Ca. 92604

OPEN 7 DAYS, MON.-FRI. 10-8, SAT.-SUN. 10-6



BROADEN YOUR RAILROAD EXPERIENCE

COME UP TO NARROW GAUGE!

THE COLORADO MIDLAND'S UTE CHIEF

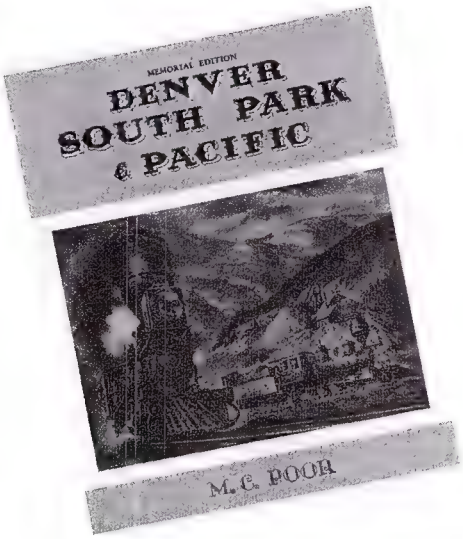
is now ready on dry-transfer & decal lettering for the HANRAHAN REFRIGERATOR in O, S and HO scales.

Send 50 cents for information and catalogue

PERLES PACIFIC PRODUCTS
P.O. Box 11466, San Francisco, CA 94101

NOW AVAILABLE

DENVER SOUTH PARK & PACIFIC



In 1949 the ROCKY MOUNTAIN RAILROAD CLUB published M.C. Poor's monumental history of the South Park Railroad. Only 1,000 copies were printed and this book became the most sought after railroad history in the United States. Due to the great demand for this book and the constantly increasing interest in this wonderful little mountain railroad, the ROCKY MOUNTAIN RAILROAD CLUB has reprinted an almost exact duplicate of the original book. New plates were prepared for the photographic illustrations and a few rare photos, along with three full-color reproductions, were added.

If you are thrilled by the sound of blasting exhausts and shrill whistles echoing from rocky walls; if you cherish the memory of journeys on tiny slim gauge trains; or if you just wish you had been able to make such a journey; you will want a copy of DENVER SOUTH PARK & PACIFIC.

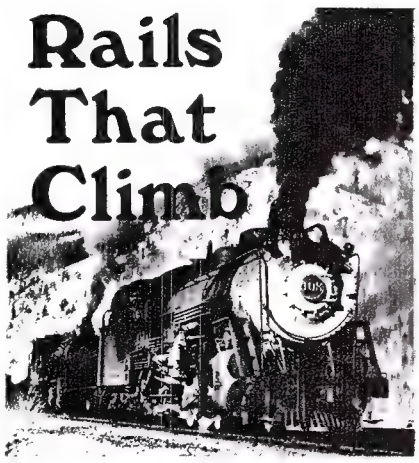
The thrilling story of the West's most romantic pike is complete in this over 500 page deluxe volume packed with rare photos, color paintings, maps, charts, timetables, and a complete locomotive roster. The Railroad Modeler will find this volume to be an important addition to his library, especially if he models in narrow gauge.

The Rocky Mountain Railroad Club is offering this large 8½x11-inch book, printed on 70-pound enameled stock at the exceptionally reasonable price of $39.95, post paid while they last. Don't delay—get your order in today to:

ROCKY MOUNTAIN RAILROAD CLUB
502 S. Cody Street • Lakewood, Colorado 80226
Colorado Residents add 6% Sales Tax — Dealer Inquiries Welcomed

GW GAZ-79

Rails That Climb



The dramatic story of the famed Denver & Salt Lake — Moffat Tunnel Route — pounding mallet locomotives cresting lofty Rollins Pass, raging blizzards and paralyzing snow finally circumvented by the famed Moffat Tunnel, through Colorado's most spectacular scenery! Edward Bollinger's historic text, first published 30 years ago, is now presented by William C. Jones in a lavish new 320 page edition with 350 carefully chosen photos, 6 color plates, maps and documents, clothbound. **$24.95 ppd**

Colorado Railroad Museum
DEPT. S, BOX 10, GOLDEN CO 80401

master charge VISA

IRON HORSE HOBBY SUPPLY CENTER

Send for our complete BRASS listing (SASE please)

WE STOCK KITS FROM:
DURANGO PRESS
RIO GRANDE MODELS
MODEL MASTERPIECES
FINE SCALE MINIATURES
QUALITY CRAFT

RESERVATIONS TAKEN FOR:
HO, HOn3, O, On3 from SUNSET, WESTSIDE, KEY, HALLMARK, NJ BRASS, NICKEL PLATE, OVERLAND MODELS, PFM AND LAMBERT.

4544 W. JACKSON BLVD.
HILLSIDE, ILL. 60162
(312) 544-7091

REPRINT OF VULCAN IRON WORKS 1913 LOCOMOTIVE CATALOG

FEATURING: Special pre-publication price.

160 pps. 6x9¼ (soft cover)
- 104 builders photos
- 106 engineering and dimensional tables covering 201 locomotive classes - both standard and narrow gauge - domestic and export types designed to meet the varying needs of contractors, steel, mining and industrial plants; and for plantation, logging, freight, switching, and passanger service, operated by steam, oil, compressed air, or gasoline, and ranging from seven to seventy tons on drivers.
- Como Timber Co., Norfolk Lumber, Fitzhugh Lumber, Central Cypress Co., Lehigh Valley Coal Co., U.S. Navy, DuPont, Cherokee Lumber, Mullins Lumber (Mullins SC), Dismal Swamp (Norfolk VA) and many others.

Publication Date Early 1980 Dealer Inquiries Encouraged

BROADMOOR HOBBIES

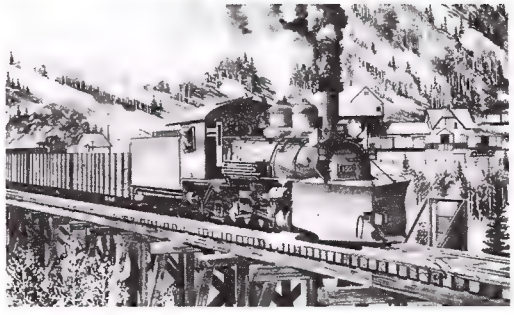
For more information call or write
785 South Church Street, Hazleton, Pa. 18201
Phone (717) 459-0538

Color Prints by Jan Rons

- Full color, 16"x24" featuring four of Jan Rons' finest works
- Signed, numbered and cataloged by the artist
- Shipped postage-paid in sturdy tri-tubes
- Limited edition prints — ideal for home, office or as a gift

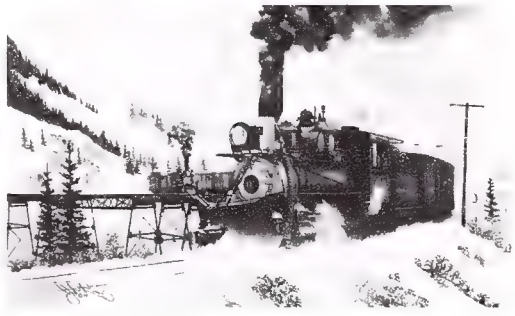
Print Prices:
Individual prints: $25.00
Set of 4 prints: $80.00
Classic Set of 4 prints: $300.00*

☐ STOCK LOADING



☐ OPHIR LOOP

☐ SILVERTON MIXED

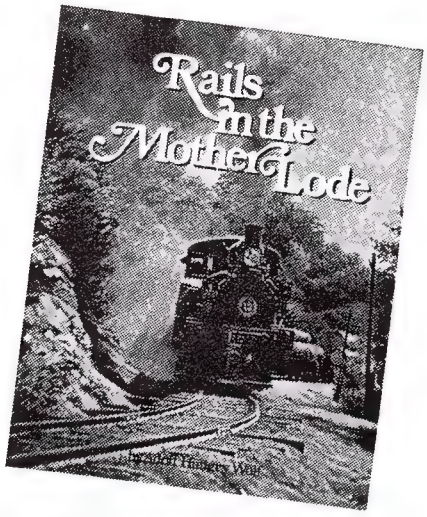


☐ GEORGETOWN LOOP

*Includes 1/1000, 500/1000 & 1000/1000

To Order:
Specify quantity & titles. Send check or Money Order payable to: RONS ART, Studio G, 4045 E. Palm Lane, Phoenix, AZ 85008. Sorry, no COD's or Bank Card purchases. Allow 3 weeks for delivery.

Rails in the Mother Lode



presents the complete history of the principal lines in the California Mother Lode system - a saga of colorful characters, fascinating equipment and heroic achievement as well as hair-raising wrecks and natural disasters. An absorbing volume, spiced with maps, equipment rosters, nostalgic railroadiana and nearly 400 historic photographs. More than 200 pages, 8½ x 11", hard bound with full-color dust jacket.

$16.95

Calif. residents add 6%

At your book or hobby dealer or write direct.

darwin publications
850 N. Hollywood Way · Burbank, California 91505

Peninsula Hobbies

"SPECIALIZING IN CONSIGNMENT"

CONSIGNMENT
MINT Kits - Fine Scale Miniatures
No. 160, Logging Repair Shed 34.80
No. 175, HOn3, Rail Car Shed 35.95
No. 165, Rock Bunker 34.80
No. 180, Sand House 39.95
CHOOCH
"O" Country Store $32.95
"O" General Store 42.95
"O" Feed Store 37.95
"O" Railroad Shanties 20.50
"O" Machinery Sales Bldg. 46.95
DURANGO PRESS
On3 Rio Grande Southern Rotary Snow Plow (one only) $199.95
On3 Hand Car 8.05
On3 Drag Flanger (DP-52) 59.95
On3 Drag Flanger (DP-51) 17.25
On3 D&RGW Water Tank 75.00
On3 Log Car 15.00
HO Ash Pit 17.00
HO Coal Loader 10.00
HO Hand Car 6.00
HOn3 Hand Car 7.25
HO Water Tank 17.50
HOn3 Flat Car 8.25
HOn3 Westside Flat Car (DP-50) 9.95
HOn3 Westside Flat Car (DP-53) 8.25
HO the Palms Station 29.95
HO Mining Supply Co. 22.50
(Complete line available)
VALLEY CAR WORKS
On3 High Side Gondola $10.50
On3 D&RGW Boxcar 14.95
STAR MODELS
On3 D&RGW Coach $92.00
NEW JERSEY INTERNATIONAL
"O" Coal Tipple $10.50
On2 Sandy River Turntable Kit 10.50

IRON HORSE MODELS
On3 Baldwin 4-4-0 Kit $475.00
DARR'S SCALE MODELS
On3 C&S Boxcar $18.50
On3 C&S Gondola 12.75
On3 D&RGW Boxcar 10.95
On3 C&S Flatcar 9.25
(one each avaiable)
CLASSIC MINIATURES
On3 20' Ore Cars 10.95
HOn3 20' Ore Cars 9.25
HO National Saloon 8.65
HO Silver Plume Store 5.75
HO Redlight District 6.00
HO The Ruins 14.95
HO Wells Fargo 11.00
HOn3 Enginehouse 7.00
HO Virginia City Ore Bin 11.00
HO Branch Line Oil Fac. 10.50
HOn3 Tank Car Zerolene 12.50
HOn3 Tank Car Conoco 14.50
HO Ophir Depot 16.25
HO Leadville House 12.75
HO Fraternity Hall 10.35
HO Works Hardware 13.95
HO Lucky Mine 9.25
CUSTOM BRASS
"O" 2-4-4-2, new, one only $750.00
On3 Flanger OD, new 65.00
On3 Texaco double dome tank car new 75.00
"O" S4 Switcher, new 395.00
"O" Alco RS-3 Diesel, new 395.00
EVERGREEN HILL DESIGNS
"O" Dollar Bros. $40.00
HO Ash Drugs 18.95
"O" Gas Station 34.95
HO Sawdust Burner 17.95
HO Woodsman Set 12.95
O Woodsman Set 13.95

KAPPLER MILL & LUMBER CO.

WESTSIDE
"O" SP 0-6-0, S-10 $495.00
"O" SP #217 new 495.00
On3 Westside D&RGW Wheel Car, new 34.95
HO SP #966, painted 196.00
HO SP A6, factory paint daylight 242.00
HOn3 C16 #268, mint 125.00
HOn3 C16 #278, mint 150.00
HOn3 Class A Climax, painted 110.00
HOn3 D&RGW K-27 Slide Valve, mint 150.00
HO Diesel Cat, mint 80.00
SIMPSON
HOn3 Westside Powder House Snowplow 29.95
On3Westside Lumber Co. Water Car 30.00
On3Powder house Snowplow 29.95
On3 C&S 64' Trestle 8.75
On3 Westside Lumber Flat Car 13.25
On3 D&RGW Short Caboose 36.75
PRECISION SCALE
"O" 55' Hopper 75.00
"O" 55' Twin Offset Hopper 79.00
On3 East Broad Top Hopper 94.50
AHM
"O" Casey Jones Kit (including motorizing kit) $51.75
"O" 0-8-0 Kit (incl. motorizing kit) 69.00
RARE BOOK
"Rails Around Gold Hill" 172.50

Please note new location 415-343-7779
1448 Cary Ave., San Mateo, California 94401
(Located in the Shoreview Shopping Center at 3rd Avenue and South Norfolk)

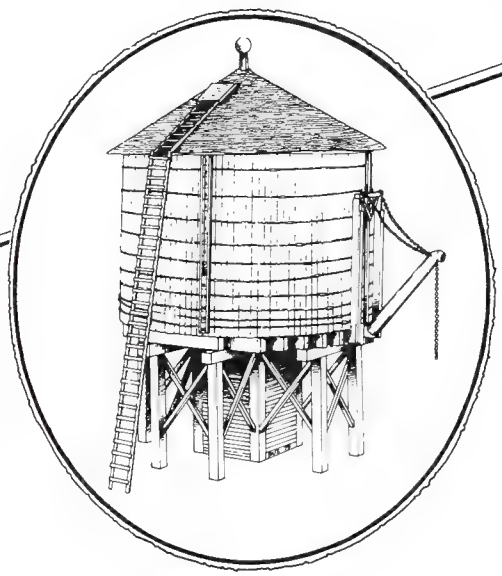
Master Charge and Visa cards accepted.

STORE HOURS
M-F 11:00 — 6:00 (open til 8:00 on Wed. & Fri)
Sat. 10:00 — 5:00
Sun. 12:00 — 4:00
Calif. residents add 6% sales tax.
Please add 5% shipping on orders over $15.00
Please add $1.50 shipping on orders under $15.00
All items subject to availability; prices subject to change.

'TANKS' for the Memories..

from THE ORIGINAL WHISTLE STOP KIT COMPANY!

The R.G.S. and D.& R.G.
ROUND ROOF WATER TANK
in ¼" scale



Made exclusively for us by V & T Shops.

The Original Whistle Stop Kit Company continues its' new line of CAST EPOXY KITS with this alluring 'round roof' water tank. You'll find this model highly detailed yet easy to build; both the authentically tapered tank and the scale-shingled roof come in one-piece cast epoxy parts. Wood beams support the tank, and cast-metal pieces include the waterspout and ornamental finial. The strong attention to detail ranges from the flat bands around the tank to the lock on the frost box door!

The R.G.S. and D.& R.G. ROUND ROOF WATER TANK—it'll make an attractive addition to your railroad at an affordable price to your pocket-book.

—$44.95.

Orders under $75.00, please add $1.50 for shipping.
California residents please add 6% sales tax.
Send a #10 S.A.S.E. for our flyers.

Ask your local dealer for
THE ORIGINAL WHISTLE STOP Water Tank,
or order directly from us.

Watch for the future release of the HEX-ROOF WATER TANK!

DEALER INQUIRIES INVITED—please contact us at:

THE ORIGINAL WHISTLE STOP KIT COMPANY
2828 MARCONI AVE• SACRAMENTO, CALIFORNIA 95821

The Original Whistle Stop KIT COMPANY

Coronado SCALE MODELS

Fast Mail Order Service is Our Specialty!!

1544 E. CYPRESS ST. PHOENIX, ARIZONA 85006

POSTAGE PAID 3rd CLASS or UPS--1st CLASS 10% Ph.602/254-9656

GRANDT LINE PRODUCTS

121	On3 Hi Side Gon Stake Extensions	1.00
122	On3 Hi Side Gon Brake Levers	1.00
3046	On3 Coal Chute Hardware Kit	13.00
5132	HOn3 26" Metal Wheelsets	2.00

C. H. B. MODELS (1/4" Scale)

WP-16	Wheel Barrow	3.25
JD-63	Figure for Wheel Barrow	1.95
JD-67	Shop Hand Figure, type 1	1.95
JD-68	Shop Hand Figure, type 2	1.95
JD-69	Reclining Figure	1.95
JD-70	Leaning Figure	1.95
JD-71	Conductor	1.95
D-1	Line Shaft Drive	2.25
D-2	Parallel Shaft Drive	2.00
D-3	Perpendicular Shaft Drive	1.40

NATIONAL MOTOR CO. (1/4" Scale)

902	Model T Touring Car, top up	18.00
1902	Model T Touring Car, top down	18.00
908	Model T Rail Car	17.00
903	Model T Delivery Van, style 1	18.00
904	Model T Delivery Van, style 2	18.00
905	Model T Delivery Van, style 3	18.00

EVERGREEN HILL DESIGNS

501	HO Saw Set	13.95
5002	O Saw Set	14.95

RIO GRANDE MODELS

3029	HOn3 Derrick OP & Idler Flat	35.00

PLANS by HERMAN DARR

ET-1	ET&WNC Box Car	1.00
ET-2	ET&WNC 37' Gon	1.00
ET-3	ET&WNC 30' Gon	1.00
EN-2	Eureka & Palisade Gon	1.00
EN-3	Eureka Nevada Stock Car	1.00
BB-1	Bodie & Benton 0-4-2T, Porter	1.00
BB-100	Bodie & Benton Flat Car	1.50
AC-100	Argentine Central Shay No. 4	1.50
HE-200	Hobart Estate Flat & Camp Car	2.00
VT-200	Virginia & Truckee Flat Car	2.00

MODEL MASTERPIECES

101	HOn3 Como Roundhouse	65.00
107	HOn3 Durango Depot	42.50
108	HOn3 Kokomo Cabin	11.00
109	HOn3 Lyons Depot	18.50
117	HOn3 Stone Ash Pit	5.95
118	HOn3 50' Turntable & Pit	32.50
403	On3 DSP&P Gunnison Depot	45.00

SCALE MODEL WEATHERING CO.

Vol. I	"Weathering Techniques"	5.00
Vol. II	"The Art of the Diorama"	5.00
Vol. I	Color Pack	4.00
Vol. II	Color Pack	4.00

SAN JUAN ENGINEERING

On3	Howe Pony Truss Bridge Kit	27.50
On3	Chama Coaling Tower Kit	54.00
On3	Cumbres Station Kit	coming

McLEOD RAIL MINATURES (all scales)

103	Logs (4 1/4" long)	2.25
104	Logs (5 3/4" long)	2.25

THE CROSSING GATE (On3)

D&RGW High Side Gon Kit (All Styrene)		33.50

THOMAS A. YORKE ENT.

115	O Coke Ovens	14.95
115-H	HO Coke Ovens	11.95
116	O Victorian Brick Building	39.95
C-1	O Hillside Cabin	44.95
117	O Rubbles Depot	49.95
117-H	HO Rubbles Depot	34.95

ORIGINAL WHISTLE STOP

On3	D&RGW-RGS round roof tank	44.95

COLORADO RR MUSEUM BOOKS

Locomotives of the Rio Grande	coming	9.95
Annual No. 14	coming	16.95
Rails That Climb (D&SL)		24.95

"Your one-stop source for Narrow Gauge supplies"

sas

NEW in REVIEW

On3 K-37
Iron Horse Models
1120 Gum Ave.
Woodland, CA 95695

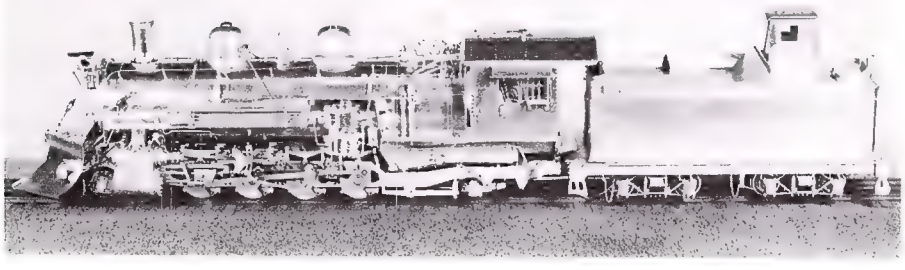
The Denver & Rio Grande Western K-37 was first projected as a three foot gauge 2-8-8-2, however financial problems resulted in something a bit less ambitious and the outside frame 2-8-2 that we all know so well came into being. The boilers and tender tanks for these locomotives came from standard gauge C-41's. The tender trucks are standard gauge and have the wheels pressed into three-foot gauge. The frame, cylinders and drive assemblies were built new by Baldwin. Six K-37's were built in Denver, Colorado in 1928 and four more were assembled in 1930. The ten K-37's built were given the numbers 490 through 499.

Iron Horse Models has provided the modeler with numbers 491 and 494. These On3 models were built in Korea by Samhongsa. Each version has over 430 investment castings. The cab interior alone has 68 separate castings. The models come equipped with a constant brightness lighting module. The locomotive comes with the ash-pan, brake rigging, snow plow, on #494, marker lamps, and some other small parts packaged separately. The mechanism is powered by a coreless Cannon LB-32 motor with a ball bearing drive. Full set up instructions and history are provided as are two sheets of plans for the locomotive. The suggested list price for #491 is $1180.00 and #494 with the snow plow is $1195.00.

So much for the details. My review model ran well right out of the box. it was quiet and responsive on my test track. I was not able to test it on curved track. There was some motor noise at full speed but it was not objectionable. The model is highly detailed and seems to have a full complement of pipes, joints, brackets, and electrical conduit. The cab doors open and close and the windows slide. The cab roof comes off to reveal the interior detail. The model comes in a natural brass finish and my sample had no visible solder worth mentioning. There were a few minor problems with my sample: the castings had an odd shine and texture to them, and the electrical conduit held the smoke box front out of line. The smoke stack on my model had a slight forward slant. However, the rods and motion are well formed and neat, and the rivet work seems well formed. This model is a well detailed and fragile appearing replica of the prototype. I am sure every part is not there but I am not enough of an authority to comment on that.

There have been some problems with these locomotives. I have talked to Iron Horse about them. It seems that the first run got out of the builders shop without being inspected. It also seems that the Korean builders had trouble soldering the large cross section parts found on a locomotive of this size. As a result some of the K-37's have begun to shed parts. One friend of mine lost 37 parts. My sample lost one tender part, the cab apron came off, and the electrical plug between the loco and tender broke off as I plugged it in. I also understand that some of the models do not run right out of the box. That was not the case with my sample. It ran well. Iron Horse Models is aware and very concerned about these shortcomings and have asked me to say that they will repair and make good any problems you have with your K-37. So contact them if you have a problem. *Bob Brown.*

Kelley Morris has recently rebuilt one of the IHM K-37's. He will be sharing his opinion of the locomotive and provide some tips on improving the model. (See the Nov. issue.) Editor.



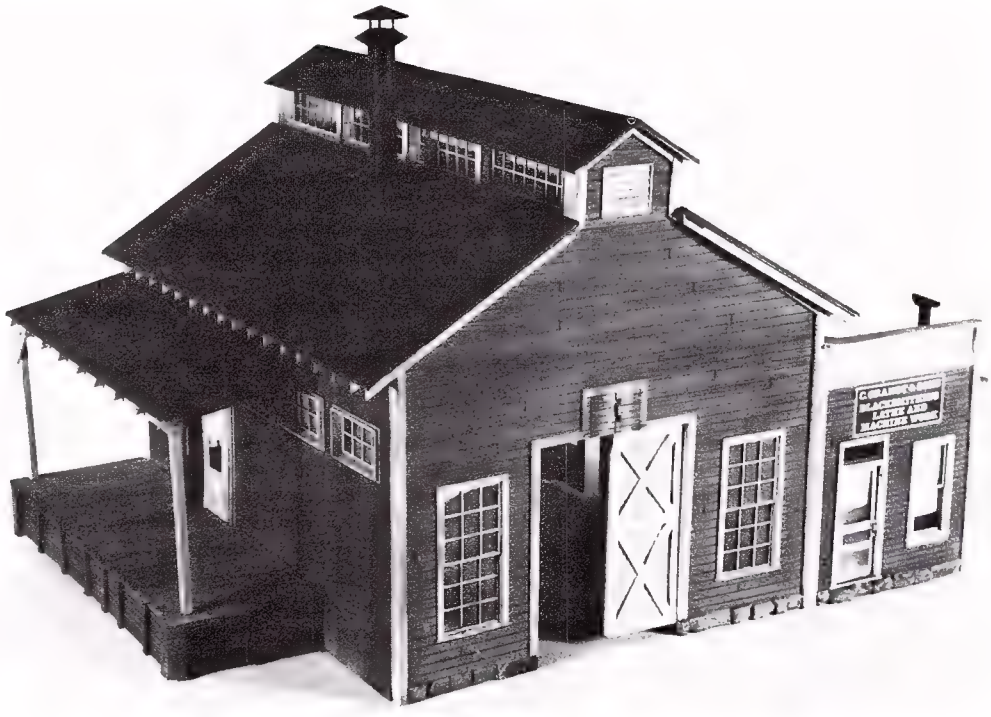
O Scale Model T Ford
National Motor Co.
P.O. Box 931
Walla Walla, WA 99362

I am delighted to see this new series of model automobiles come onto the market. They have been needed for many years. We have not had a good Model T since the Renwall series and they are as hard as hen's teeth to find. National Motors has plans for bringing out six different Model T's during the summer of 1979. As of this time (July) they have issued two autos. They have the 1911 Torpedo and the 1909 Sports Roadster. Yet to come is a 1910 Touring Car and Rail Inspection Car, 1912 Delivery Van in three versions with decals, a 1912 Depot Hack & REA truck and finally a 1914 Fire Truck. All of these kits will be issued in limited runs of around 300 cars. I'm sorry to see this because I feel there is a place for these models on a continuing basis in the hobby.

I assembled the 1909 roadster and was very pleased with it. The kit is

composed entirely of white metal castings except for the tires which are rubber "O" rings. The castings are well detailed and generally fit together with little trouble. I had some trouble getting the box part of the car body to fit down over the chassis. However, a few minutes with a file made it fit. There are a few small holes to be drilled and some minor flash to clean off. I assembled my kit with ACC cement and sprayed it with Floquil Grimy Black. I then painted the radiator and lamps with brass paint. Some of you might want to replace the bracing straps which run from the fenders to the windshield with wire. The top for the sports roadster is especially well done. The first two kits sell for $18.00 each. Even if you are not modeling such an early period I think you will find these kits worth assembling as mantle-piece models. I am looking forward to the rest of the models in this series. *Bob Brown.*

Machinery Sales Building
Chooch Enterprises, Inc.
P.O. Box 3882
Glendale, CA 91201



The Machinery Sales Company building is the latest release in Chooch Enterprise's line of ¼ inch scale kits. The kit is primarily composed of high density urethane foam. This material is a solid two-part liquid which is cured in a rubber mold into a solid semi-rigid material. It can be shaped with hand tools and bonded together with ACC glues and epoxy.

The Machinery Sales Company building is a freelance design which is a composite of many prototype structures found throughout the country. The barn-like design features both corrugated iron and wood siding. The structure can be used for a number of purposes such as a warehouse, machine shop or auto repair shop. I made my model into a blacksmith and machine shop.

The kit is composed of eleven highly detailed urethane castings, a number of Grandt and Gould plastic parts, card stock, paper stock and scale lumber. The instructions are printed on three sheets and contain templates, isometric drawings and assembly steps. The instructions are brief but should be adequate for a modeler with a few kit's worth of experience.

The kit can be assembled in three or four evenings. Painting and weathering of the walls, doors and windows will take several more evenings depending on your skills inventory. Chooch suggests that the walls be painted and partially weathered prior to their assembly. I decided to assemble the walls and then do the painting. I think that Chooch's method is probably the best approach. Painting before assembly will make masking of the trim easier. I found that it was necessary to air-brush Floquil on since the paint solvent seems to react with the urethane.

The urethane castings must be cleaned up slightly prior to painting. I found some of the window openings slightly undersized. The wall thickness does vary on some of the parts. This can be corrected easily with a file.

The rear wall does not match the front one in the slope angle of the roof. It is also approximately ⅛ inch too short and 1/16 inch too narrow. The height can be corrected with several blocks of ⅛ inch square plastic or wood. The disparity in roof angles can't be corrected and must be tolerated. A number of kits checked all had the same faults so it does not appear to be a shortcoming of the material of my sample.

The skylight is constructed of plastic window castings and mullions. Chooch recommends bracing the assembly with a scale 2 x 6 inch wood strip. I used a .040 inch x .250 inch styrene strip. The styrene strip produced a strong assembly once the MEK had set.

The various roofs on the structure are made from card stock with wood roof eves. I reinforced the main roof sheets with several strips of ¼-inch square basswood. The card stock may warp in time since it does not have much support at the top edge. I suggest you ration the scale 2 x 6 inch wood sparingly when installing the roof eaves. I ran out before getting around to the loading dock.

Chooch provides textured paper strips for the tar paper. I substituted silk span for these strips. Silkspan has a good texture and can be worked around the edges of the roof nicely. The silkspan was applied with model airplane dope and air brushed with basic black.

Weathering will make or break the finished model. Subtle color variations will bring to life the artistic distressing on the castings. Chooch suggests artist's acrylic paints for the basic finish and pastel chalks for special effects. I used this approach and found it to be easy to do once you get the "hang" of it. Make sure that you add a wetting agent to the water or the acrylic wash will bead up on the surface.

While the kit is highly detailed, it lacks one obvious detail. There is no chimney for the office. Surely the owner must feel the need for heat during the winter. I made the office chimney from one of the plastic sprues from the kit with a shim stock top. The large chimney is a Grandt Line product and is not provided in the kit. As a final touch I added the Micro Scale sign, C. Grandt & Sons.

The finished model is a highly detailed structure which would take months to duplicate from scratch. The fact that it took only one week of evenings to complete means a great saving in valuable model making time. With this in mind, the price of $49.95 is reasonable. *Gene Deimling.*

O Scale Water Tank
Original Whistle Stop
2828 Marconi Ave.
Sacramento, CA 95821

A water tank is a mighty thing. They tend to tower over you and brood. This massive feeling is conveyed by the latest kit from the Original Whistle Stop in conjunction with V & T shops. Their new water tank kit makes up into either a D&RGW or RGS round roof tank. The tank stands about 10 inches high and it is about 5½ inches in diameter. The tank is a one piece cast epoxy casting and has the correct taper. This taper was produced by tapering each of the tank staves on the pattern. The

tank bands are cast in place. You merely have to add the cast white metal band fasteners. There are two of these per band which gives the tank some nice detail. The roof is a one piece casting and is excellent. The shingles have been cast beautifully. The spout, finial for the top of the tank, feed pipe, water level weight, and pulleys are all white metal castings. All wood comes pre-cut and merely has to be assembled. Very complete instructions for staining and weathering the wood are provided. A sample piece with knotholes is also provided in the

kit so you can see what the instructions are trying to tell you. The little housing under the tank for keeping the pipes warm is an epoxy casting. It has all the knots and splits cast into it. The spout and its framework really fell together with no trouble. The feet for the tank supports are also cast epoxy. I followed the painting instructions on the roof and got a beautiful cedar look. I did not distress the tank supports as much as I would have liked to because of my deadline. Careful work on the wooden parts will go a long way towards making an outstanding model. There are several pages of plans and instructions for the tank. Several versions are shown, so you can build more than one for your layout by purchasing additional kits. I have suggested that the manufactures add some nut-bolt-washer castings to the kit and they said they will. The roof may need some careful sanding to get it to seat perfectly on the top of the tank. I assembled my tank in about five hours; none of the work was frustrating and the model went together beautifully. This kit at $44.95 is an excellent way to produce a fine water tank quickly. *Bob Brown.*

O Scale Railroad Blacksmiths Shop
Thomas A. Yorke Ent.
P.O.Box 65
Sunland, CA 91040

When Thomas Yorke started using plaster castings to represent wooden structures my first thought was, how was the modeller going to render these castings and have a finished product that was satisfying to the eye and have the look of real wood? There is no doubt that the wood detail is there but how was it going to look when colored?

Then in the Nov./Dec. 1978 **GAZETTE** an article appeared, entitled "Coloring Plaster Buildings" written by Thomas Yorke. This I hoped would disperse all the doubts, as the article had a specific section on rendering the castings to represent wood. This section did indeed cover the subject in detail and even covered individual stains to be used.

After reading the article I was still skeptical. I had read the techniques and materials to be used, but it was not until later that I realized that I had read and lost the most important factor that

was being conveyed, "The best way to learn is to try. You've got to open those bottles of stain and don't be afraid."

The opportunity to open those bottles and try, came when I had to assemble "The Railroad Blacksmiths Shop" – Kit #0-112. This consisted of four wall castings, two castings for the roof dormers and two castings for the ends of the louvered roof vent running the full length of the building. Grandt Line plastic castings are provided for the windows and smoke jack and strip wood for the large sliding doors, louvered roof vent, roof supports and trim. Covering for the roof is provided in a sheet of corrugated metal which has to be cut into individual panels.

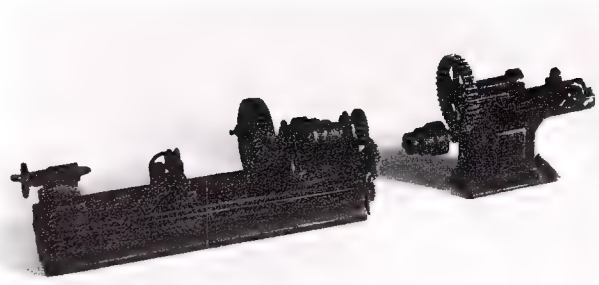
Assembly presented no problems although the instructions are a little sketchy. Instead of coloring my building in the faded red color suggested in the provided color photo, I chose to render it in a natural weathered wood. This was done by following the article previously mentioned, step by step, and using the Driftwood and Walnut stains as suggested. I think the secret here is to start off with a very light stain and work up to the desired finish in very slow stages. After staining the wall castings and the stripwood for the large sliding doors, using the same stains, it is very difficult to detect any difference between the two, and it was at this point that I realized the value of the information related through the article contained in the **GAZETTE**.

The roofing material was cut into appropriate size panels and "Gooed" in place. A hand brushed coat of "Reefer Gray" was then applied and when dry, a suitable color of rust pastel chalk was applied and brushed with a soft brush.

The finished building measures 7 inches long x 7 inches wide x 6½ inches high and is actually based on a facility found on the Sierra Railroad at Jamestown, California, although it is a somewhat condensed version of the prototype.

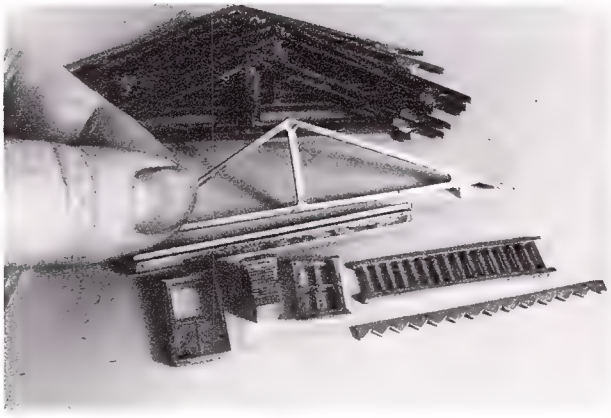
This is a good value kit, and combined with "Roundhouse" and "Boiler/Machine" Kit #113, a complete facility to house and maintain those K-27 and 28's is available. The price for Kit No. 0-112: $44.95. *Colin Emmerson.*

Evergreen Hills Design, P.O. Box 633, Los Molinos, CA 96055 has a new set of Woodman's tools available in both HO scale and ¼ inch scale. The set consists of two gasoline chain saws, a steam driven saw, four different sized bucking saws, two short pevey's, two long pevey's, and six axes. The cast parts are exceptionally well done white-metal castings. The saw blades are brass etchings and have good clear tooth detail. The instructions are clear. The chain saws and the steam bucking saw have to be assembled. The ¼ inch scale set is shown in the photograph. I did not get the steam saw fully assembled in time for the photo. The ¼ inch scale set sells for $14.95 and the HO set retails at $13.95. These are outstanding detail pieces for your logging scene. *RWB.*



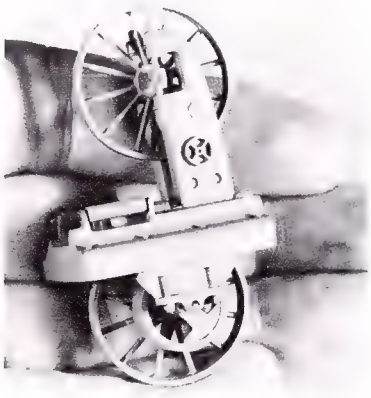
The seventh kit in the Black Smith series being marketed by Rio Grande Models, Box 463, Agnew Station, Santa Clara, CA 95054 is for a bolt threader and lathe. Both of these models are cast in white metal and are for HO scale. They can of course be used for S scale and O scale as smaller capacity machines. They would also make great clutter or scrap around railroad yards and they are very useful as flatcar loads. The lathe is cast in eight pieces and the bolt threader is made up of only three pieces. The detail is excellent on these castings and they fall together in minutes. There is minimal flash and the directions are clear. The set sells for $5.95 and is #3034-BT. *RWB*

Utah Pacific, P.O. Box 8174, Salt Lake City, Utah 84106 has a new HO scale illuminated switch stand available. The stand comes in a kit made up of well detailed parts. The lamp actually works and is lighted by a miniscule grain of wheat bulb. All the wires for lighting this bulb are completely concealed. The stand is fragile in appearance and should be usable in both S scale and O scale. The lamp comes complete with jewels. Each stand sells for $8.95 and extra light bulbs are available at two for $5.00. *RWB*



Keystone Locomotive Works, 159 Wheatley Ave., Northumberland, PA 17957 is continuing to issue eastern logging models in HO scale. Their latest set of structures is for three company houses. These identical row houses were common in both logging and mining towns in the heyday of these industries. Many of these rows still exist. They are a necessary detail for any eastern logging or mining scene. These kits are patterned after buildings in Cass, West Virginia. They are composed of pre-cut clapboard wood siding, however, the doors and windows have to be cut out. The rest of the kit is made up of cast white metal roof rafters, doors and windows, detail fancy trim, and chimneys. The castings are well done and the instructions are complete. Remember there are three two story buildings in each kit. The set sells for $19.95. *RWB*

C & F Portraits, P.O. Box 2187, El Modena, California 92669 has a new series of photos available that are magnificent. The series is called "Gallery of the Rails" and consists of four prints at this time. Each portrait is 18 inches x 24 inches, is borderless, and is ready for framing. The photographs are in full color and are very brilliant. They come mounted on cardboard and sealed in plastic shrink wrapping. Each print sells for $7.98. Print #101 shows two classic Pacific Electric "Red Cars" in brilliant PE Red. Print #102 shows a Western Maryland "F" unit crossing a bridge and is framed by autumn foliage. Print #103 shows Westside Heisler #3 surrounded by the saw mill at Tuolumne. The last print, #104, pictures a D&RGW Rotary throwing snow on a bitterly cold day on the Cumbres & Toltec Scenic Railroad. Don't miss out on these prints. *RWB*

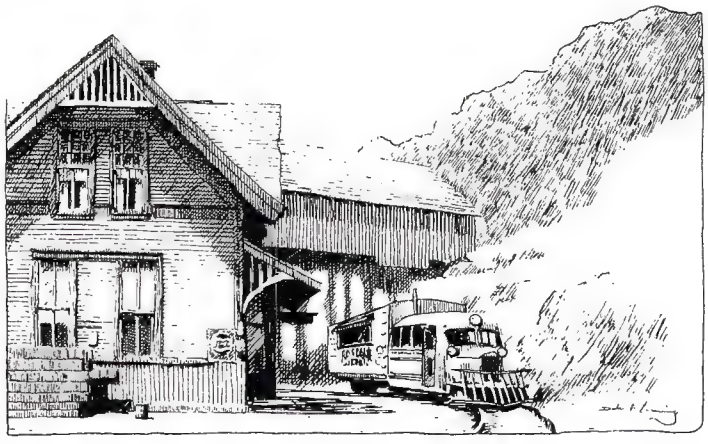


Keystone Locomotive Works, 1200 Warren Rd., Ithaca, NY is certainly where the logging action is in HO. Their new HO scale saw mill is now spawning a line of saw-mill machinery. The first is a band saw. This kit consists of well detailed white-metal castings which fall together. The saw comes with complete directions and an etched brass saw blade. The kit sells for $8.95 and should go a long ways toward filling up the interior of your latest saw mill. *RWB*

Lesney Products Ltd. has released a new series of Matchbox vintage autos and trucks. The model pictured in this review is the 1/47 scale replica of a 1927 Talbot van. While the Talbot was an English design, it can easily be reworked into a "colonial" truck. The model is made of zinc-alloy metal and comes painted and lettered. The price is approximately $5.00 and the van can be found in many toy and hobby shops. *EED*

The Sandy River Car Shops, 567 Rockdale Ave., New Bedford, MA 02740 has brought out a new kind of kit. The kit builds into an On2 model of one of the last five box cars built at Phillips, Maine by the Sandy River & Rangeley Lakes Railroad. The proper numbers for these cars are 104 to 108. The kits are the usual Sandy River Car Shops kit except that they have styrene sides and ends from Evergreen Scale Models. All the facia strips and doors are also styrene. The body shell comes assembled and consists of a milled wooden floor, roof and end blocks. The styrene sheets are glued to the wooden shell. Detail parts are both plastic and white metal. There are many details included such as cast door-hangers, cast body-bolsters, nuts and bolts, ladders, end steps, and air brake details. Both wire and nylon are provided for the truss rods. An excellent plan and written details for assembling the model are provided. The car comes without trucks or couplers. The kit sells for $19.95. *RWB*

The Narrow Gauge SCENE



by Charlie Getz

A trip to the Rockies is always refreshing, and more so when you have the opportunity to meet with so many nice people as I did at "Great Freight." "Great Freight" turned out to be just that — really great, thanks to a lot of hard working folks, as Bob has mentioned in his remarks. I personally thank Bill and Mary Ann Peters as well as all the other hard working people who made "Great Freight" a reality. Above all however, I wish to thank you who attended "Great Freight" for your splendid cooperation and enthusiasm in making this really a memorable day. Our only regret is that more of you couldn't attend. If you have good photos of "Great Freight", please do send them to the **GAZETTE** (including an SSAE for return of photos) and share them with your fellow readers.

Special thanks also to the Cumbres and Toltec Scenic Railway. Crew members, including John Coker and Gary Getman, Manager Joe Vigil, and indeed the entire crew contributed to the success of "Great Freight". The C&TS is a superb outfit to work with, and they do need your support. There is no guarantee that this railway will exist forever, unless you support it, not only through special occasions such as "Great Freight," but also by riding the train as part of your vacation. I am happy to report that many of our "Great Freight" participants took the opportunity to ride the C&TS, and I urge you to do the same. It's quite a ride, entirely authentic, and the scenery is worth the trip to Chama, New Mexico, or Antonito, Colorado.

A number of you have already asked, "What's next?" Well, we never envisioned "Great Freight" to be a periodic occurrence, but based upon the success of this outing, it just might be possible to do something different in a couple of years. Bill Peters has suggested an authentic stock train such as was run over the narrow gauge in the fall. ("Super Stock"?) Another idea would be a "San Juan" over the Silverton line in Pullman Green, now that the Rio Grande has transferred ownership to a new railfan-owner.

For those of you who didn't know, the Denver and Rio Grande Western Railroad has finally "unloaded" the Silverton Line, but to most capable hands. Charles E. Bradshaw, Jr., of Orlando, Florida, the purchaser, is reputed to be a railfan. He plans to restore the Durango yard to its past glory, including re-erection of the roundhouse and coaling tower, and will also operate K-36's and K-37's over the line to relieve the strain on the three K-28s. This will necessitate strengthening of a bridge or two, and perhaps widening a curve, but I've been assured that K-37s have operated as work trains, and the prospect is exciting. Bradshaw intends to eliminate the phony diamond stack on the K-28s, which will be good news to railfans, but will retain the bright orange and silver paint scheme on the cars, at least for the present. Because of the change in ownership, the line will be renamed the Durango-Silverton Narrow Gauge Railroad, and will be operated by a company of the same name.

The sale price for the entire line and equipment, including the engines and a caboose from Alamosa was $2.5 million. Bradshaw is attempting to keep the original crew members and employees on board if possible, and will extend the season of operations from early May through October. Projected plans also include added shorter runs to Rockwood Cut if traffic merits, and perhaps a run originating in Silverton. All in all, the prospects are quite exciting and we will report back to you when more details are known. You might consider a visit to both the Silverton run and the C&TS as part of your vacation plans for next summer. It is not too early to start planning!

After the "Great Freight" I, like many of you, enjoyed the splendors of Colorado for a couple of weeks. (Which explains why there are no reviews with my name on them in this issue!) While exploring the wonders of the RGS with **GAZETTE** author Kelly Morris, and Jeeping with Lee and Barbara Gustafson (fun!), I also had the opportunity to enjoy some of Colorado's other railroad attractions. I was able to take part in the 20th anniversary celebration at the Colorado Railroad Museum where they fired up #346, and even let me pilot the Museum's Galloping Goose! That was quite an experience. The Museum is one of the most interesting and accessible places in Colorado, since it is just outside Denver. Besides the numerous displays and historic rolling stock, the Museum offers a complete selection of books and other memorabilia making it a worthwhile place to visit. Occasional steam-ups are an added attraction.

Another good bet for future vacation plans is the Georgetown Loop Railroad between Silver Plume and Georgetown, just off the main interstate from Denver, and the Central City Narrow Gauge Railroad, nearby. Under the capable management of Lindsay Ashby, both railroads offer interesting scenery, the good smell of oil smoke and steam, and friendly crews. These are nice folks running a couple of interesting railroads that merit your ridership. Especially the Central City line — this year was the third annual last run, so help support these operations. It's important.

Lindsay Ashby hopes to rebuild the Argentine Central, an undertaking which is also quite exciting. He is engaged in negotiating some difficulties with the town of Silver Plume, with the fond desire of rebuilding the entire line as it zig-zagged to Mt. McClellan. He already has West Side Shay #18 on the property to handle the work. The Argentine Central was one of Colorado's most scenic railroads, and its re-creation should be a tremendous attraction and boost to the economy of both Georgetown and Silver Plume.

Colorado's narrow gauge railroads are experiencing a resurgence, and are being re-discovered by more and more people. Even grades where railroads no longer exist are being appreciated for their scenic beauty. For example, the dirt road leading over Boreas Pass from Como to Breckenridge is one of the most beautiful drives you can take in Colorado. In Como, the stone roundhouse once used by the Denver South Park and Pacific as well as the depot and the old Pacific Hotel are still standing. The Pacific Hotel is open to the public under the name, "Como Depot", and is in the capable hands of Keith and Jo Hodges, offering good meals,

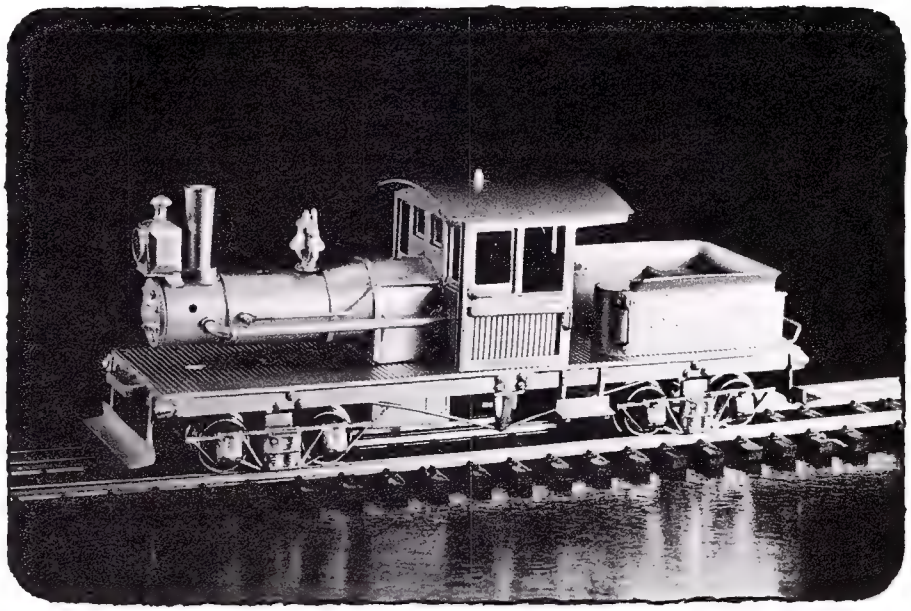
A sad view of the Cumbres snowsheds. They have become a victim of neglect and age and are being dismantled. ***Photo by George Lawrence.***

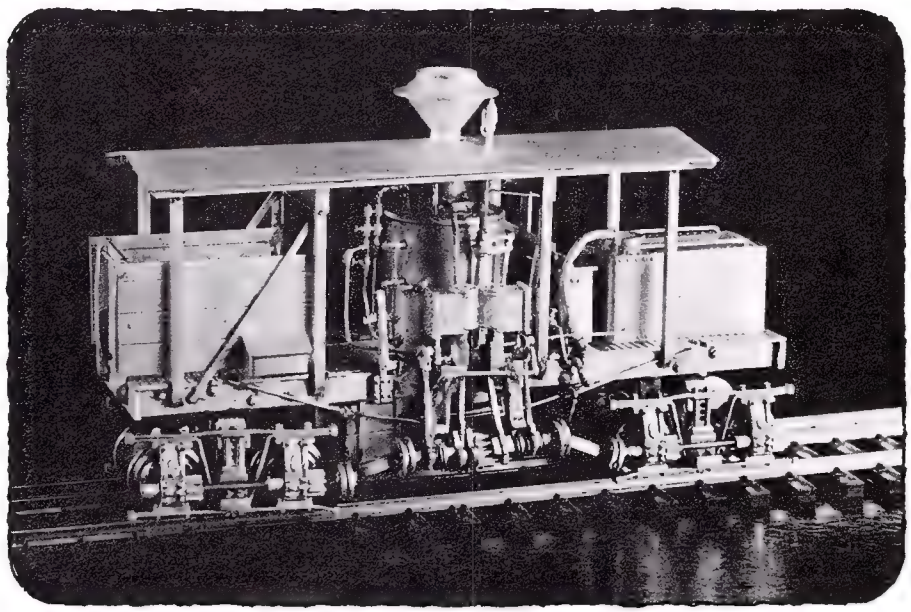
These views of the Great Freight were sent in by Steven Belmont.

rooms, and a taste of what it must have been like 80 years ago. There are plans to restore the depot, and hopefully the roundhouse will be saved too, although there are no specific plans at the present time. A must for your Colorado vacation plans.

Let me finally mention that if you do go to Colorado next summer for a vacation, be sure to check some of the excellent hobby shops that you will find in the state. Colorado is really blessed with superb scenery, interesting places to visit, and some really nice people.

On with the news. Northwest Short Line sent some pictures of their newest releases, both in HO. The first one is of the long-promised Shay CH #60 (for Construction Number). List price on these is $299.95. The other photo shows the 20-ton Class B Dunkirk, discussed in past columns. This strange looking engine will be offered both in standard and narrow gauge versions, and might even be offered in HOn30 inch gauge as well. No availability or price as yet, but hopefully it will retail for under $200.





If you haven't seen the latest On3 locomotive from N.J. International then you are missing out on one beautiful model. I am referring to the new On3 Uintah 2-6-6-2T. I saw one of these models at the Santa Rosa PCR NMRA Convention. The detail is good and the running is very smooth. I know there were only two of these unique locomotives built but watching that front end swing out over the scenery makes me want to get one. The model has a full cab interior and a Cannon coreless motor. The detail and construction is of the fine quality that has come to be associated with N.J. International. If you are in standard gauge don't miss the new O scale G.E. 44 ton switcher. It should be in the shops now.

Otherwise the brass market has been rather quiet, and the ads no doubt will tell you more than I can. I personally am looking forward to Sunset Models' new RGS 20 in On3 which is promised for the up-coming year. There are also rumors of an increasing number of "kits" (to consist of brass engine sub-assemblies to which some parts must be attached or soldered) as a means of fighting the high cost of brass engines. Something along these lines may keep the market from pricing itself out of existence.

On the rolling stock front, Empire-Midland continues to produce good quality brass cars in HOn3 and On3. New in the former scale is the 25-ton drop-side gondola and a highside gondola. We have not seen samples of these or the "Hamilton" reefer yet, but hope to soon and will report back.

Train Miniatures, Box 292 South Holland, Illinois 60473, in response to a request in this column, is going to produce a 40-foot steel boxcar with the flying Rio Grande Herald in HO. The kit number will be 3116 and it will retail for $3.50. We will get a sample for review soon, and hats off to Train Miniatures for not only reading our column, but responding to our readers' requests. How's that for service?

Over at Rio Grande Models, Derrick OP should be released by now, and the McGiffert log loader should be available soon, both in HO. After the loader is released, Eric hopes to produce D&RGW spreader OV in HOn3.

Since my return, I have been inundated with various new products to review, and you will be seeing these reviews in upcoming issues. One interesting new product is from Campbell Scale Models for the Richmond Barrel Works. This is a building based upon a design by Frank Ellison and really has nice lines. The building is corrugated metal with a wide canopy-covered freight dock which extends on two sides of the building, with attached office. I find the design to be classic, and heartily recommend that you grab one. Of course Campbell's instructions are unsurpassed in the hobby and his kits are a lot of fun to assemble. Campbell also sent their new Kiowa Junction Station, which is usable for any short line. As a combination station and interlocking tower, it is also perfect for a crossing. Speaking of which, Magnuson's new "Main Street Crossing" is a whale of a lot of fun to assemble, and really has some nice casting work. Look for a report soon on this kit.

Model Masterpieces' new Cimarron Store is doing quite well. Look for a two-stall enginehouse as advertised next, including a boiler house. As a special package deal, Model Masterpieces will sell you one of their excellent boilers to detail the interior of this boiler house at a reduced rate. Also new from Model Masterpieces is the old Timberline plastic window line. This has been updated and includes two new designs. Also new is the re-release of the Timberline water spouts, and some white metal casting sets.

Model Masterpieces' new 65-foot Durango turntable should be welcomed by all narrow gauge modelers, since it is typical

for many locations. This one is unusual in that it will feature a styrene turntable bridge by the Gould Company with MM's excellent aluminum block and bronze bearing mechanism. There are plans to do this turntable in ¼ inch as well. Of course, the kit in HO includes the cast plaster pit walls, wood parts, and soft metal bogie wheels for a price of approximately $39 in HO. MM still plans to produce a ¼ inch roundhouse based upon the Colorado Midland soon. All 14 stalls in O gauge would be massive, but of course a smaller version is practical. MM plans on increasing the size of the door openings in O scale to allow use of even more engines than the prototype would probably have handled. MM also hopes to produce some Colorado and Southern steel underframe cars in On3 starting with the gondola which will feature a soft metal underframe, wood, and Grandt parts including Bettendorf trucks, correct for these cars. The gondola will be followed by a box, stock, reefer, and flat (which were converted from house cars). Custom details by Graphic West will also be featured.

If that wasn't enough, MM hopes to produce their C&S section house in ¼ inch with their new Master Wood II shingles. These shingles are thinner (1/72 inch) than Master Wood I, but are not self adhesive. They are correct for D&RGW practice and will retail between $4.50 to $5.00 for two 8 x 10 inch sheets. MM also hopes to do the Vance Junction coaling station in both ¼ inch and HO as well as the depot and agent's house at Vance Junction in HO.

By the way, if you haven't obtained a Gunnison depot from Model Masterpieces, I urge you to do it soon, as only 200 more will be produced of this limited run. Busy people.

Durango Press has some interesting new products coming. In HO, they hope to produce an overhead crane and, of course, you saw the Silver Plume store in both HO and O gauge advertised in the last **GAZETTE**. This looks like an interesting project and this building has always been one of my favorites. The Wheel Works will be releasing an HO service truck as used at gas stations in the 1930's. The service truck had bigger wheels than normal and railings around the back of the bed. In ¼ inch scale Wheel Works hopes to produce a regular stake truck as their next release . . . Walthers has revised its Lehigh and New England decals and re-released them in O, HO, and N. These decals are quite colorful, and should be welcomed by L & NE fans. . . Also in the same area, new dry transfers for the Cumbres and Toltec and the Silverton run with full color letter boards have been released by Vintage Reproductions. Vintage makes some of the best dry transfers around, and I urge you to look at these new products.

PBL, P.O. Box 749, Chama, New Mexico 87520, has a new sound system which must be heard to be believed. It is an 8-track tape player by BSR which attaches with two wires to a PFM Mark II sound system. You must drill holes for control knobs, but otherwise the installation is simplicity itself. The tape features two bells, a whistle, turbo generator, air pump and blower noises and adds quite a bit to the otherwise excellent PFM sound system. We heard this system while we were at Chama, and were greatly impressed by both the quality of components, and the effect of the air pump and turbo generator whine. It really made the engine sound alive. The entire system retails at $129.50 and is definitely worth obtaining. Don't forget that PBL also does other modifications to the PFM system to enhance its realism. . . Taurus Products, P.O. Box 6534, Orange CA 92669, has some nice products planned in HO. They will do an observation car platform railing, and ornamental iron fences and gates in etched brass as well as a number of new structures, including the Tomahawk Post Office and a monument works. They also plan to produce an Oregon Short Line stock car, a water tank car, and a pickle car. Don't misjudge my comments made last column about their "roll away" cattle loading facility. While the idea of a cattle ramp operating off the main line sounds like something Lionel would include in a train set, the prototype actually did exist, and Taurus Products' kit is a fine craftsman offering.

Archey Creek Geology, Rt. 2, Box 152, Levelland, Texas 79336, has some interesting plaster castings available for rock work. No doubt you have seen their ads in **MODEL RAILROADER** and the **GAZETTE**, and we've just had a chance to look at their catalog which outlines some 7 different formations available to cover every type of rock face. The detail on these is staggering, and we hope to have review samples soon to show you what we mean. You can obtain a catalog sheet from Archey Creek Geology to see for yourself. These modules are all hand cast using white hydrocal, and are definitely museum quality.

Beyond the rolling stock mentioned already, Rio Grande Models is also going to produce power poles and a transformer set, and is gearing up to produce logging machinery now that the shop machinery sets are completed. RGM is offering an interesting premium. If you send a label from any RGM kit and $1 for shipping, you will get a free belt buckle, which normally retails for $8.95. The buckle is based upon the famed Otto Mears' silver passes, and is definitely worth owning, so don't let this opportunity pass by.

In the Book Nook, J. C. Conde, P. O. Box 146, San Mateo CA 94401, is offering his excellent *Sugar Trains Pictorial* and *Narrow Gauge in a Kingdom* directly at discount. *Narrow Gauge in a Kingdom* is priced at $4.95, and *Sugar Trains Pictorial* is offered at either $15.50 for the regular edition or $19.50 for the collector's edition. These are both excellent books about interesting prototypes. Sundance Publications, Ltd., reports that Volume II of their *Two Foot Between the Rails* series won't be released for at least a year and a half. Their newest book however is available. It's on articulated steam locomotives, including the few articulated narrow gauge engines produced. This book has over 416 pages, 60 illustrations of which 32 are in full color. Weathering Wizards Nash and Greenberg's latest work, *Art of the Diorama* has some good ideas on diorama construction. There are some inspiring pictures of the author's own award-winning models. Check one at your local shop.

In the Art Mart, C&TS brakeman. John Coker is quite an accomplished artist. Besides lettering the K-36 used in "Great Freight," John donated a superb print of a DS&P train for the **GAZETTE** offices. He also has a number of watercolors of narrow gauge subjects. Write John c/o the C&TS, Box 789 Chama, N.M. 87520 for details.

I want to remind you to send your thoughts about a national narrow gauge convention, perhaps to be held in Denver, starting in 1981, to Craig Brown, 7511 Murdoch Ave., Shrewsbury, MO 63119. O scalers, S scalers, toy train collectors, and others seem to have their own conventions. Perhaps it's time for narrow gaugers to have one as well. We are considering changing the format of this column; what are your thoughts? Let me know.

Finally, remember that the MDC-Locobashing contest entry deadline is October 15. We've already had some great entries, but could use more. How about finishing that project of yours? And did you note that Mexican narrow gauge MDC conversion in the August 1979 **RAILROAD MODELER**? Nice work.

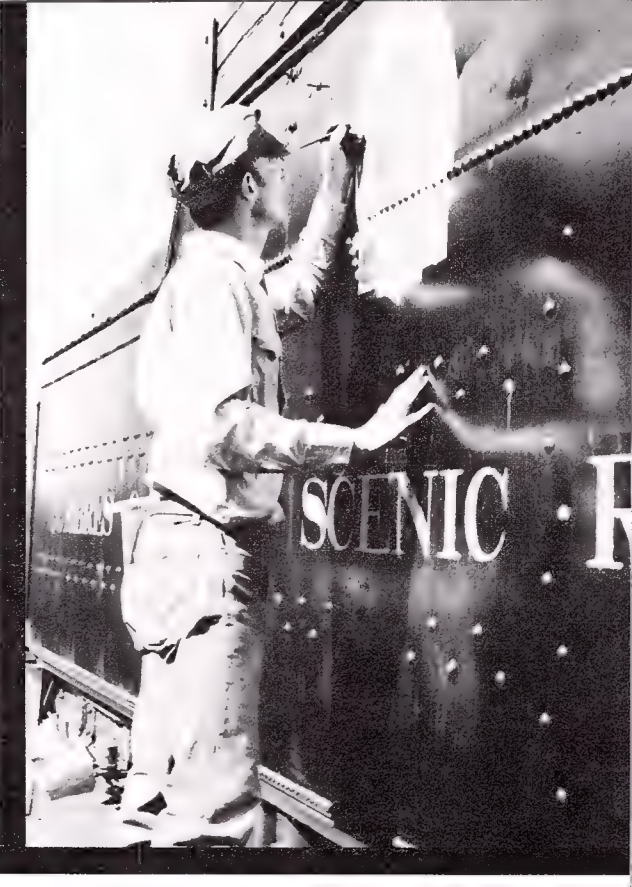
Thanks again to all of you who made "Great Freight" so memorable. See you next issue.

Charlie Getz
845 Ridge Court
South San Francisco 94080

Great Freight '79

by Bob Brown
Photos by the author

The Great Freight crossing Lobato Trestle.



John Coker at work on the D&RGW herald.

The Great Freight is over but it was magnificent while it lasted. On July 6th, 1979 about 275 true believers assembled in Chama, New Mexico for the run. Those present the evening before enjoyed a beer party complete with Blue Grass music and other forms of banjo strumming.

The train consisted of engine #484, a K-36 which had been freshly painted with a green boiler jacket. The engine and tender were lovingly re-lettered by Cumbres and Toltec Scenic Railway employee John Coker. John also did all the freight car stencils. (He also is a fine artist working in both pen and ink and water colors.) The train consisted of a long refrigerator car, two 3000 series box cars, two stock cars, a drop bottom gon and two flat cars. A long caboose made a fitting end to the train. All these cars were lettered for the D&RGW circa 1930's.

The enthusiasts who gathered to watch, photograph and sound-record the Great Freight were transported on six of the C&TSR buses to the photo sites. I know there was some grumbling about the buses but with so many people it was just not possible to use private cars. Ninety-nine point nine percent of the participants understood and when it was all over many people mentioned how convenient the buses were. There were 15 photo stops scheduled and one more was added along the way. At each stop the train was run by one time, two times or three times depending on the space constrictions at the site. In one case at the Lobato Trestle the buses showed in the background so they were moved to get them out of the picture. We had excellent weather until the last three stops. The rain started and thunder and lightning crashed. The sound people liked it because of the rumble of thunder that could be heard in the background. The rest of us worried about being grounded by our tripods.

I want to thank Bill Peters, his wife Mary Ann and their family for doing the main part of the work on the Great Freight. Bill and his friends painted the engine and Bill made all the arrangements for the train and selected the sites. He also ran the trip and kept in touch with the train by radio and the crowd by bull-horn. Charlie Getz of the **GAZETTE** staff was kept busy with the bull-horn and crowd control as well. I always hate to start mentioning people because I know someone will be left out. However, I would like to thank Barbara and Lee Gustafson, Kelley Morris, and Gordon North for their help as bus captains I also want to thank the Cumbres & Toltec Scenic Railway for their cooperation. If you have not visited this line be sure to do so. It is not just a tourist line. It is a railroad in its own right with its own equipment and its own schedules hauling passengers between its two terminals. The ride is well done and spectacular. A professional job in every way. In fact just to show how neat the Cumbres people really are, the General Manager rescued several people who were left behind up at Cumbres at the end of the trip. Joe Vigio, General Manager of the C&TSR, drove them all back to Chama *and* stopped along the way wherever they wanted so they could take photos of the train as it returned to Chama. That's cooperation!

Lastly Bill Peters, Charlie Getz and I want to thank all of you who came and made the trip possible. You were Great. Bill told me that he went back up to pick up at the lunch site the day after the trip and he could not even find a scrap of paper. Everything had been picked up including old beer cans and other litter left behind by *other* people. That is what made the Great Freight so great, the people you meet and the friends you make. So again for all of us, *Thanks*.

Top left: The Great Freight between two Hollywood stage props. The entire consist of the train is shown in this photograph, taken at the Weed City station.

Center left: The long trek across Lobato Trestle for one of the best shots on the trip. As I directed traffic, I thought the line of people would never end.

Bottom left: Bill Peters working on the real thing. He is shown spraying the contact paper prior to the re-lettering work.

Top right: A closeup of John Coker's handiwork. The lettering was applied over spray painted sheets of contact paper.

Center right: Lunch break around the traffic-control pick-up truck. From left to right we have Gary Getman, John Coker and an unidentified trainman. They were part of the crew. The funny suspenders are holding up Charlie Getz's pants. The puzzled fellow is Fred Hamilton of the **MODEL RAILROADER**. Next comes Barbara Gustafson who is raptly listening to Kelley Morris.

Bottom right: The whole crew waiting for the train to run by.

Military Light Railway Locomotives of the U.S. Army

by Richard Dunn

There were many engines built for use on the light railways used in France during the First World War. In this article I plan to describe only those locomotives built for the United States Army. If there is enough interest in these locomotives and the railways they ran upon I will continue this series and expand it to include track, rolling stock and the engines and equipment used by other countries.

When the United States entered World War I a complex system of trench railways already existed to facilitate the movement of troops and supplies behind the lines. Special engineering battalions were formed as part of the U.S. Army and locomotives and equipment were developed for these units.

The terms "trench engine" or "light railway" may not mean much to you. But, for those of us who have investigated their history those words conjure up thoughts of little 2-6-2T locomotives, 60 cm gauge track, and some extensive and very interesting rail systems built in France during the First World War.

When the U.S. Army entered the First World War it was decided that 60 cm (23⅝ inches) would be the gauge for our tactical and trench railways. These railways operated from standard gauge railheads to carry troops and supplies on up to the front lines. The French, British, and German armies already had 60 cm light railways in service by the time the United States entered the war, so there was nothing novel about the idea.

The military first turned to the Baldwin Locomotive Works with their needs and in 1917 Baldwin presented the army with a 2-6-2T Class 10-12 ½D locomotive for approval. The engine weighed 33,700 lbs. and could carry 476 gallons of water and 1,700 lbs. of coal. Baldwin built 195 of these little machines of which only 191 arrived in France. Two are thought to have been lost at sea, and the other two were used here in the states.

One of the two engines which remained stateside was sent to the Magor Car Company of Clifton, New Jersey for testing with the rolling stock they were building at the time. The other stateside locomotive was sent to the Davenport Locomotive Works, Davenport, Iowa as a sample for them to duplicate.

Davenport built a total of 80 2-6-2T's. None of these was sent overseas since they were completed just as hostilities ended in 1918. Most of these engines ended up at army depots and were never used, being sold as surplus or scrapped.

Also building 2-6-2T's for the U.S. Army was the Vulcan Iron Works of Wilkes-Barre, Pennsylvania. A total of 296 engines were originally ordered but this request was cancelled after only 30 locomotives rolled out of the shops. As with those produced by Davenport, most of these sat in army depots unused or were sold as surplus. These Vulcans had basically the same chassis and boiler as the Baldwins and Davenports but had larger side tanks and a tank mounted on the pilot deck plate. Also the cabs were different.

Besides steam engines, the army also made good use of two sizes of 0-4-0 gas mechanical locomotives. A total of 293 engines were produced. 230 were 50 h.p. models and 63 were 35 h.p. models. Although Baldwin designed and built the first production run it seems that Whitcomb built the rest based on Baldwin's design. The engines all have Baldwin builder's plates.

The end of World War I did not spell the end for all the U.S. Army 2-6-2T's. Some stateside Army bases operated 60 cm railroads until the end of World War II. Fort Dix, New Jersey and Fort Benning, Georgia were the two largest.

Private users consisted of contractors, the Winchester Lumber Co. of West Virginia, and several plantations in South America and the Philippines. The fate of most of the Baldwins in France is sketchy. Only a handful can be accounted for between 1919 and 1939. The second World War surely took its toll of any remaining engines.

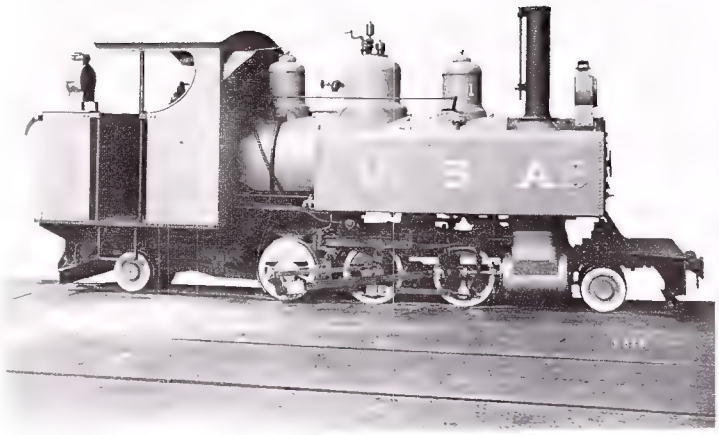
Fort Benning, Georgia has one of the Davenports on display, and a tourist railroad in Iowa has two ex-Davenports. I say "ex" because they have been modified considerably. Australia has one of the Baldwins on display in Queensland, but it is in bad shape. As far as it is known none of the Vulcans survived. The Festiniog Railway of Wales has one of the 0-4-0 gas mechanicals (now a 2-4-0) in operation. This is not much of a showing considering the total numbers constructed, but better than none at all.

Since many of these locomotives were sold as surplus they would be at home on any free lance narrow gauge layout built after 1919. It may not be possible to see the real locomotives but with a little work and ingenuity you could have one at work on your own line.

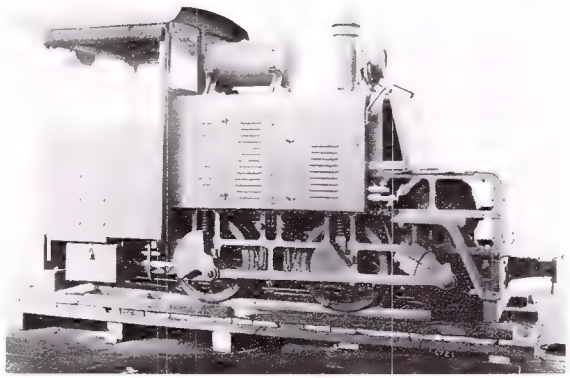
I am in touch with an authority on German trench railways of World War One and plan to have a description of the trench railways of the "other side" in a future issue.

Rich Dunn would like to know if you have any information on the trench railways to share with him. He has an extensive collection of material and is ready to share it with you if you are interested. If you are please let me know. Editor.

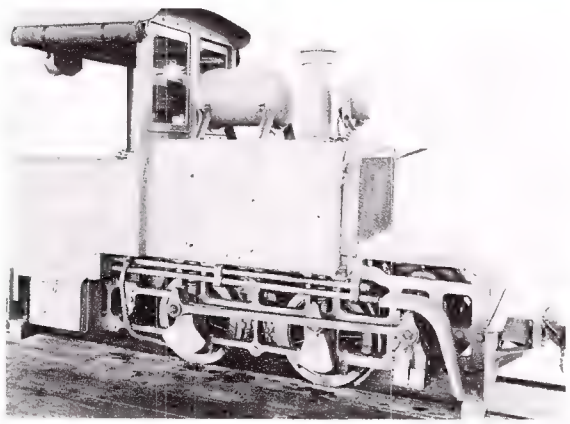
Photo above: This locomotive is transporting troops to the rifle range at Ft. Dix, New Jersey in 1941. *U.S. Army photo from the Richard Dunn collection.*

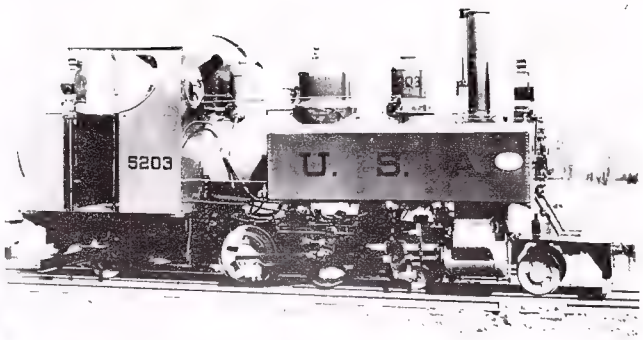


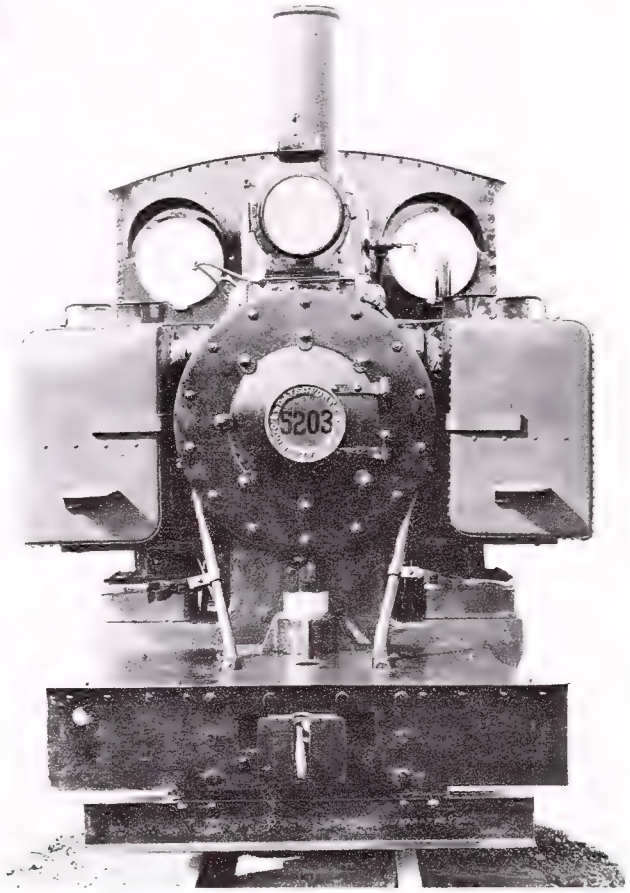
A Baldwin 2-6-2T class 10-12 ¼-D locomotive ready to be delivered. 195 of these locomotives were built by Baldwin. 191 arrived in France, two are believed lost at sea and the other two were used in the United States. *Photo collection of H. L. Broadbelt.*



Builders photographs showing a 50 h.p. gas mechanical (#7001) and the smaller 35 h.p. version as built for the U.S. Army. *Photo, National Archives.*

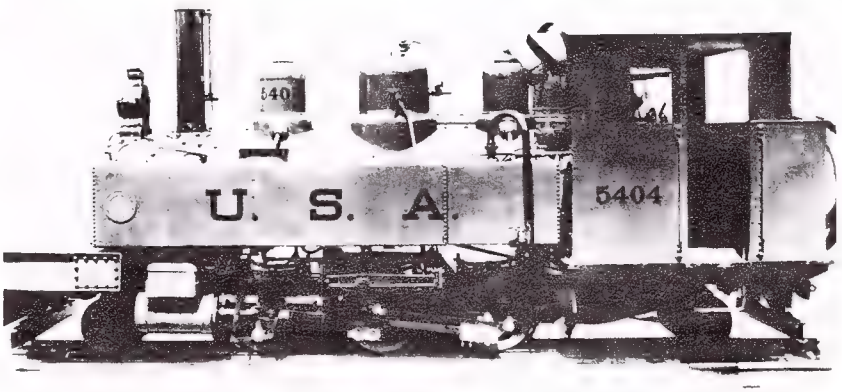






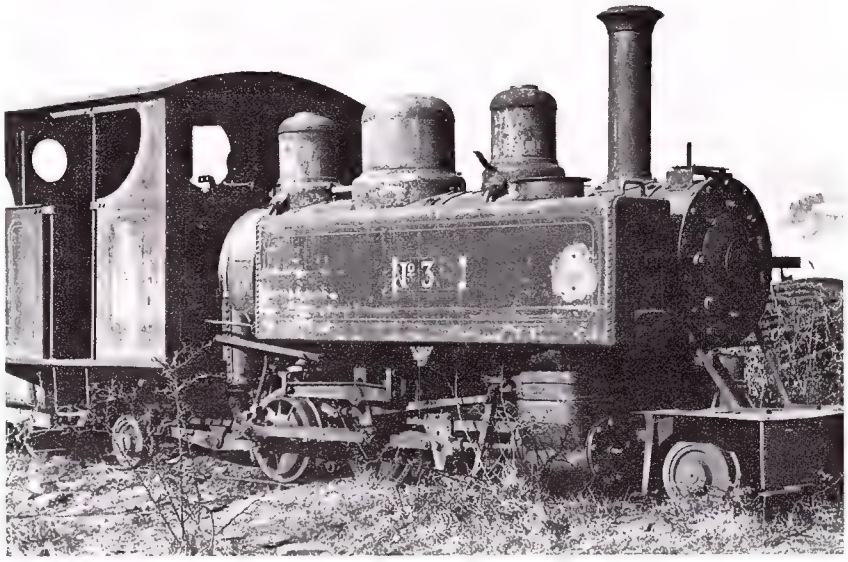
Top: A Davenport trench engine which never made it "over there". This locomotive was photographed at Ft. Benjamin Harrison, Indiana. *Photo collection of Richard Dunn.*

A builders view of the front of one of the Davenport 2-6-2's. *Photo collection of Richard Dunn.*

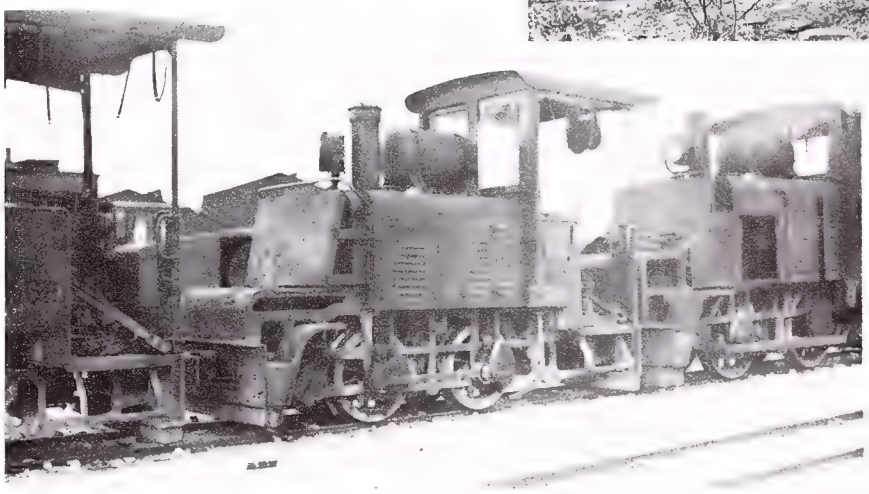


The Vulcan Iron Works built 30 trench engines. Most of them either sat in army depots unused or were sold as surplus. *Photo collection of Richard Dunn.*

These 2-6-2's have just been uncrated at Nevers, France. They still need to be set up for service. *Photo collection of Richard Dunn.*



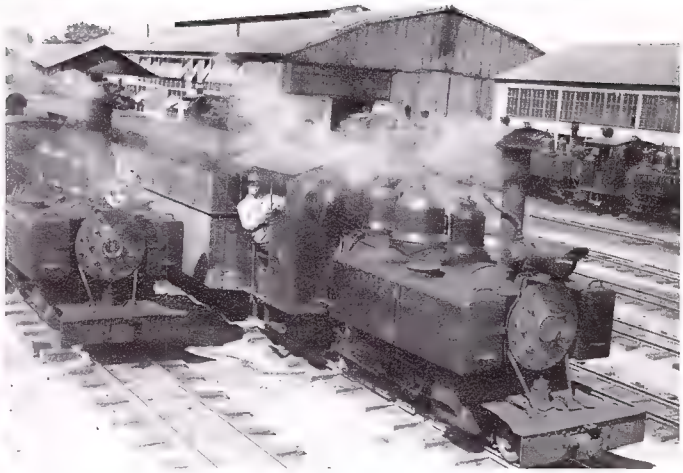
Many of the trench engines never found their way back to the United States. Here is ex-U.S. Army 2-6-2T Baldwin c/n 46764 out of service at Port Penrhyn, England. She worked on the Penrhyn Quarry Company as their #3 "Tregarth". The locomotive was scrapped in 1940. *Photo by John E. Simpson.*



A pair of gas mechanical locomotives. The first one had a 35 h.p. engine and the second engine developed 50 h.p. *Photo collection of Richard Dunn.*

2-6-2's and gas mechanicals as they arrived in France in wooden crates. *Photo collection of Richard Dunn.*

A Quarter Master Corps 60 Cm. gauge locomotive sitting on a siding at Ft. Benning, Georgia. *U.S. Army photo from the Richard Dunn collection.*

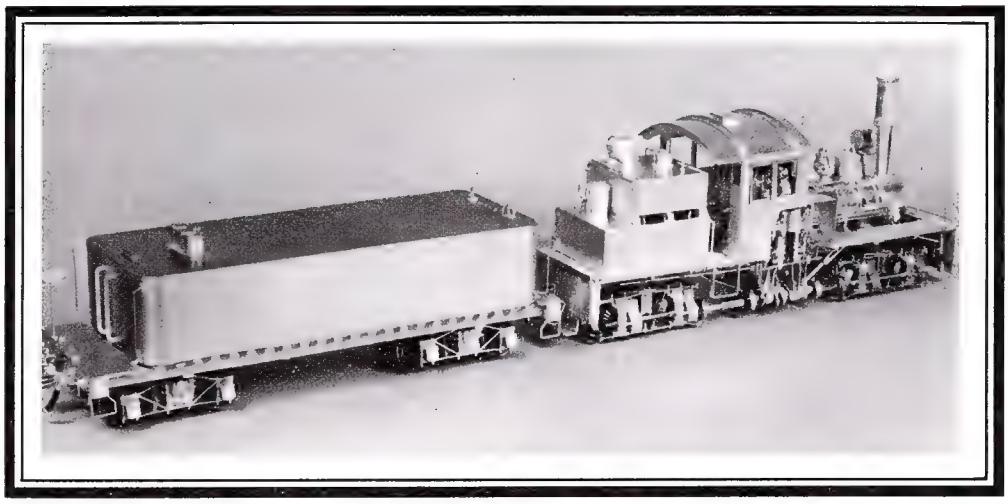


Many of the trench engines were used at army depots and for training of army railroad units. This photo shows the railroad yards at Ft. Benning, Georgia in 1941. *U.S. Army photograph from the Richard Dunn collection.*

Baldwin #5032 at the Magor Car Company, Clifton New Jersey on the test track. *Photo, National Archives.*

A 35 h.p. gas loco running across a captured German trestle somewhere in France. *Photo collection of Richard Dunn.*

Off to war. This engine was on the way to the front with a ration train. It was photographed at Menil La Tour, France in 1918. *Photo collection of Richard Dunn.*



AN AUXILLARY "SOUND" CAR

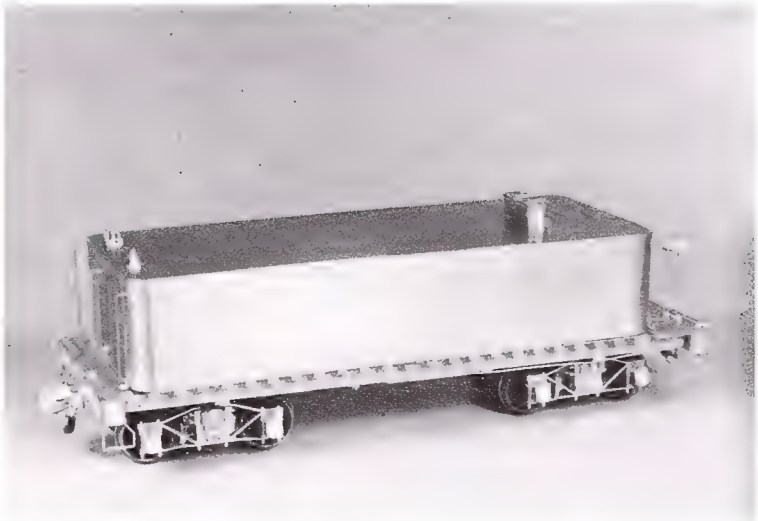
by Gordon North
Photos by the author

Introduction

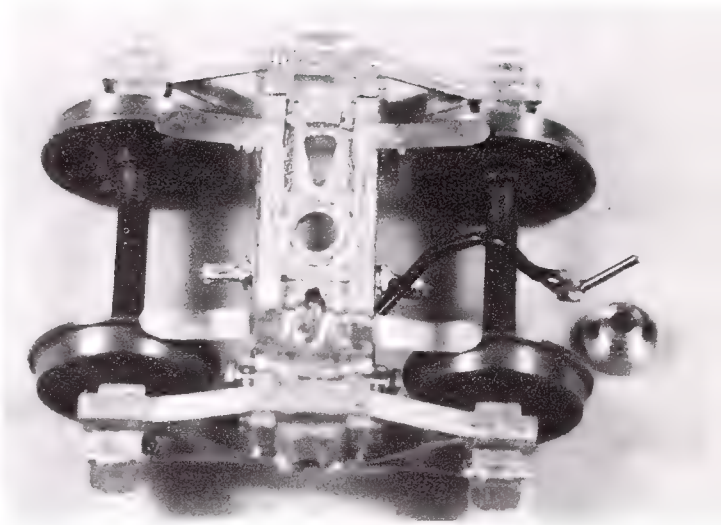
In the Nov/Dec 1978 **GAZETTE**, I described several PFM sound system locomotive installations. Sometimes, however, there is just no way to install the necessary sound components in a particular locomotive. This is very likely the case for most HO scale geared locomotives. For me, this was true for my IHM On3 Mich-Cal #2 Shay. This particular locomotive would require significant modification to install satisfactory sound equipment. One could mount the speaker and its associated components in an auxillary car – but what kind of car would be acceptable? The car should be appropriate behind the particular locomotive, or perhaps a variety of them, while both running alone or with any consist.

One commercially available car seems to fit these requirements; the Auxillary Water Car (Uintah, D&RGW) that is offered by PFM in both HOn3 and On3. The rectangular shape of the tank, as opposed to the more standard cylindrical shape, makes the installation extremely simple and provides excellent sound. The relatively low tank height might restrict the speaker selection somewhat for the On3 version, but there is a full 2 inches of width available. The only choice for HO would probably be the PFM-10 face ported speaker, but this is still entirely adequate. When this car was operated on Charlie Eckstein's On3 railroad, primarily to augment the sound from standard installations, he was so impressed by its performance that he started scratch-building his own car the next day. The PFM car is well detailed, despite its rather austere appearance. It is much more appealing when outfitted with additional "junk". Charlie is using an old C-16 tender wrapper to build his tank, and will detail it as a fire-fighting car for his logging branch line with hose reels, tool boxes, etc. Charlie has several "problem" locomotives, including a beautiful (and prize winning) Climax and two 20 inch gauge engines in the works. Charlie will no doubt end up with a fleet of "sound" cars.

Sound installation in a water car involves providing electrical contact to the



The PFM water car is shown after the completion of the sound installation but before any additional outfitting has been provided.



Top: The PFM water car is shown with the IHM Mich-Cal #2 Shay that did not have sufficient space for an adequate sound installation. Both are shown in their stock condition.

The completed truck is shown, with the uninsulated wipers soldered to the bolster at the top and the insulated wiper assembly at the bottom. The added bolster bushing is shown at the right, below the connector plug.

track and mounting sound components in the tank. The synchronizer is still mounted on the locomotive, and using the small cams described in the Nov/Dec 1978 **GAZETTE**, there should be no problems in even the smallest HOn3 Shays. The electrical contact can be accomplished with wheel flange wipers (to be described) or with pick-up shoes directly to the track. The car is entirely independent of the locomotive as far as any interconnections, etc., are concerned. The audio alone is picked up from the rails, and the locomotive continues to receive the dc for the motor and to provide exhaust synchronization.

Electrical Contacts

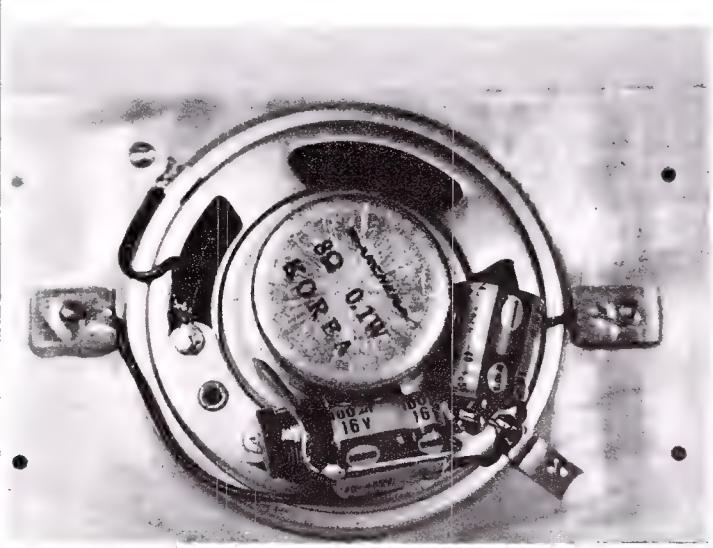
The flange wiper system for the On3 version can be seen in the photo of the truck. Since the wheels have plastic centers, it is necessary to have wipers on all four wheels. I decided to make the entire car "hot" to the right hand rail (in accordance with NMRA standards) by soldering the wipers on that side directly to the bolster. While this makes the installation much simpler by eliminating one wire, it does raise a potential problem. If locomotive frames are un-insulated from the right-hand rail, then tenders are often uninsulated from the left-hand rail. Since the couplers are brass and are not insulated from the water car frame, then there is a potential short circuit if the car is coupled to some tenders. Depending on your particular usage, the problem will either not exist or can be handled easily. If the car is only to be used behind one particular engine, then simply check which side should be insulated. Otherwise, the last resort could be to install plastic couplers or to insulate the existing brass ones. The wipers shown are made from G.H. Products axle wipers. The wipers were cut to the necessary length and trimmed slightly in width. The uninsulated wipers should be quickly soldered with a large iron or ideally with a resistance soldering probe so that the temper of the material is not affected. The insulated wipers are soldered to a pc board with a small iron, and the assembly is then epoxied to the bolster. To allow the trucks to be easily removed, PFM miniature connectors were mounted in the floor to accept the wire from the insulated wiper, using the standard PFM procedures for insulated connectors.

Speaker Mounting

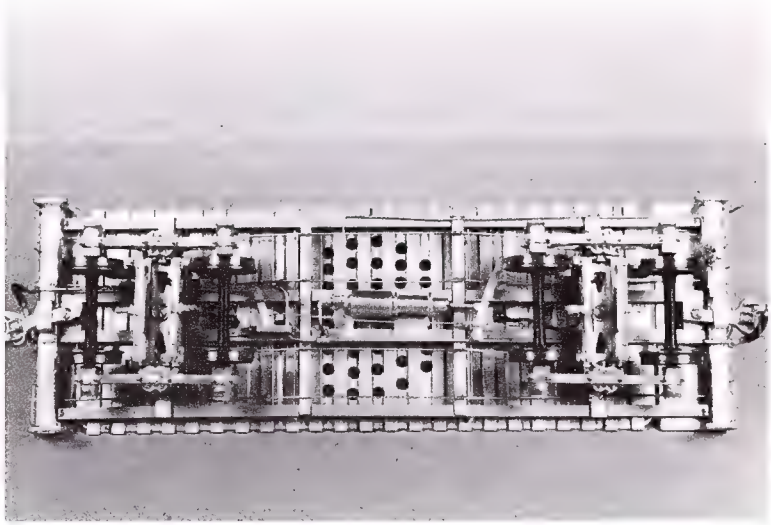
There are two mounting straps across the tank that limit the clear space on the floor to a 2 inch x 2½ inch area on the On3 model. A 2 inch diameter Radio Shack speaker was selected for its shallow design and its acceptable sound quality, and to eliminate the need to cut away the mounting straps or to cut down a larger speaker. Two small areas will have to be cut from the straps for the connector boards, with a Nibbler being an ideal tool for this job. I decided to make the speaker easily removable. Small sheet brass clamps were formed to hold the speaker and are held down with 1-72 screws. A wire from one speaker terminal was soldered to one clamp for connection to the "hot" frame. The two blocking capacitors and the RF trap are then wired in series with the other speaker terminal. The capacitors and trap were epoxied to the speaker, since a separate pc board would have served no useful purpose. This method provides an integral assembly that may be completely removed by simply removing the two clamp screws and unplugging the connector. The two capacitors and trap are available as a unit from PFM.

During limited testing of my completed car, its performance was found to be excellent. As the sole sound source or augmenting an existing installation its sound quality matched that of any of the large tender installations. The wipers performed flawlessly. The tension on the wipers had been set light enough to allow the wheels to turn without the necessity of installing additional weight, but with still a very significant drag. Absolutely no noise or loss of contact was evident during operation. I would not recommend less than all-wheel pick-up. It is too easy to mount the wipers than to take a chance. I doubt if it took an hour to complete the wiper job, including the time to figure out how to accomplish it.

There are certainly some instances where the use of this or similar type cars would not be appropriate: i.e.; I doubt if it would look right behind a small 0-4-0, where a small 4-wheel tender might be more suitable. While switchers are out, any road locomotive would be a candidate. How you detail your particular car for a particular usage is where the fun is. Ingenuity is what made the narrow gauge and short line railroads unique and appealing, and your particular operation will dictate the most desirable or interesting method of outfitting your own car. Let's see what you can come up with.



The speaker assembly is held to the floor with clamps, and the filter components are epoxied to the speaker frame. The two connector boards are at each side of the speaker, and the plug-in connection is visible between the two capacitors.

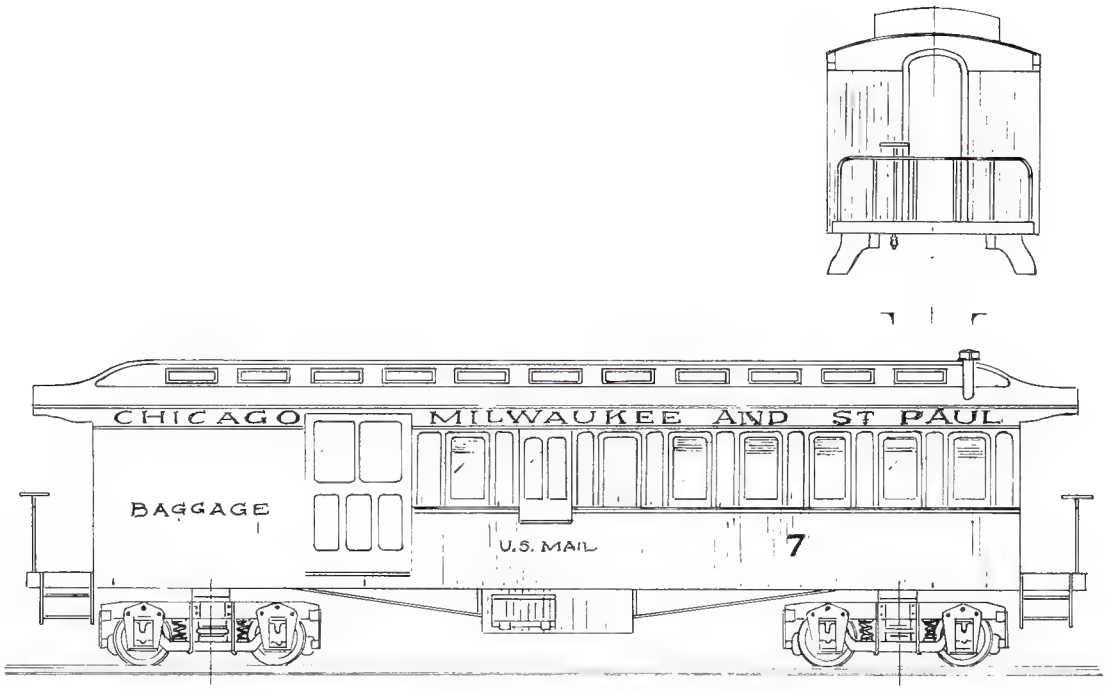


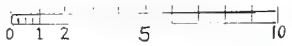
This bottom view shows the speaker portholes and the wire from each insulated wiper. There is nothing in the installation that detracts from the car's appearance.

The Bellevue & Cascade Story: Part 2

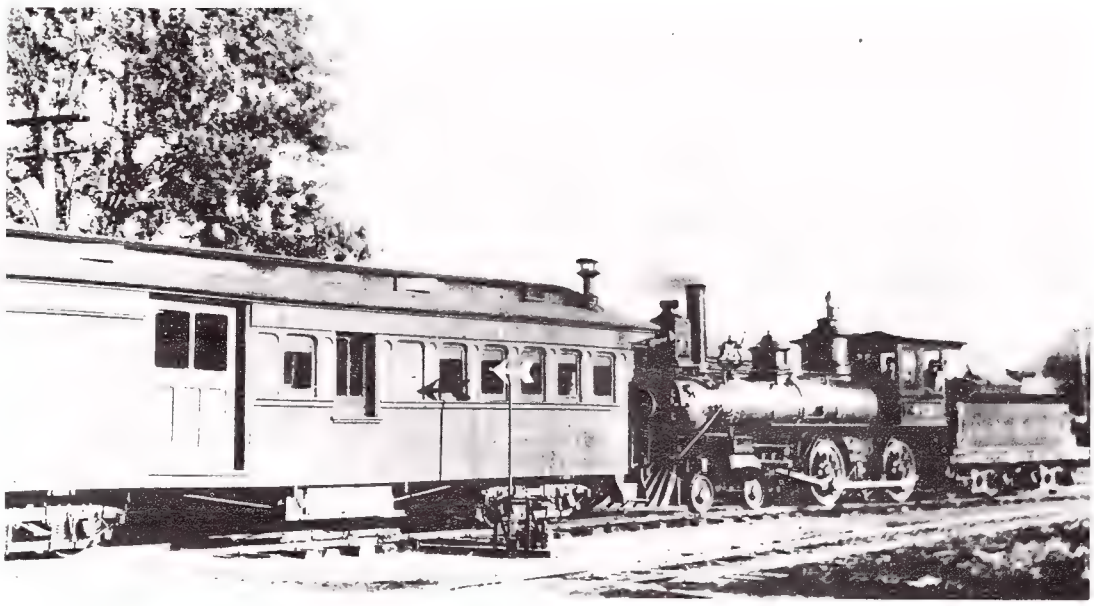
by Albin Lee

NARROW GAUGE COMBINATION CAR
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY
DUBUQUE DIVISION, CASCADE LINE
THE LAST NARROW GAUGE IN IOWA
1/5/59 A. LEE, INKED 7/5/78





Scale 3.5mm = 1 foot

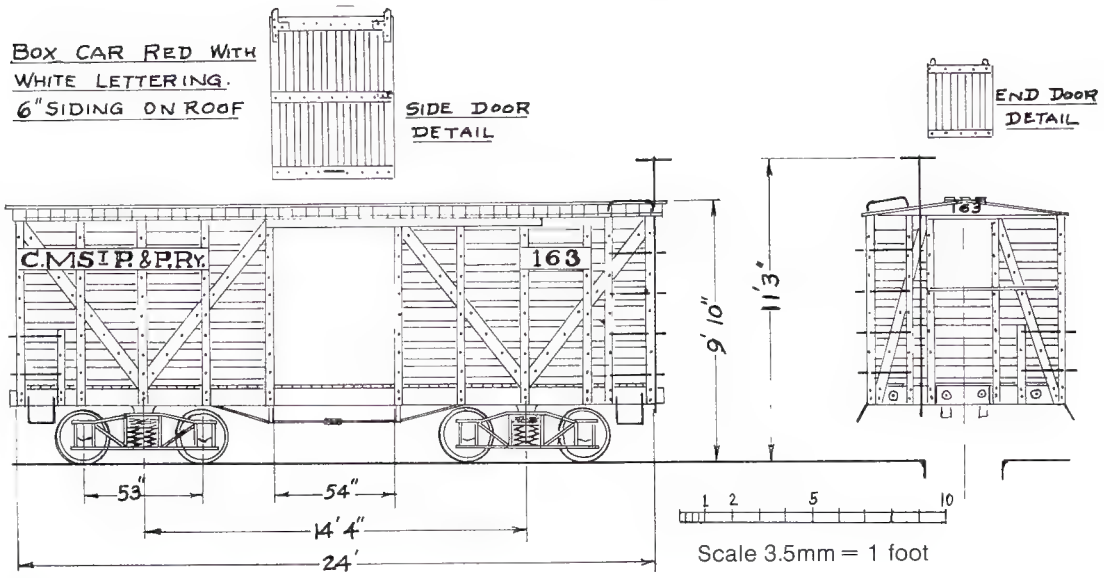


This photograph was taken sometime between October 1880 when the Milwaukee took over the Bellevue & Cascade but prior to April 1899 when they re-numbered the locomotives. Note the unusual switch stand with the arrow and the mail window in the combine. *Photo collection of Albin Lee.*

NARROW GAUGE STOCK CAR (3' GAUGE)

CHICAGO, BELLEVUE, CASCADE & WESTERN RAILWAY (1879 TO JUNE 1880)
CHICAGO, CLINTON, DUBUQUE & MINNESOTA RAILROAD (JUNE 1880 TO OCT. 1880)
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY (OCT. 1880 TO MAR. 1933)
BELLEVUE & CASCADE RAILROAD (MAR. 1933 TO 1936)

100—176 SERIES, BUILT 1878-1913, 38 TOTAL CARS
10/25/55 A. LEE

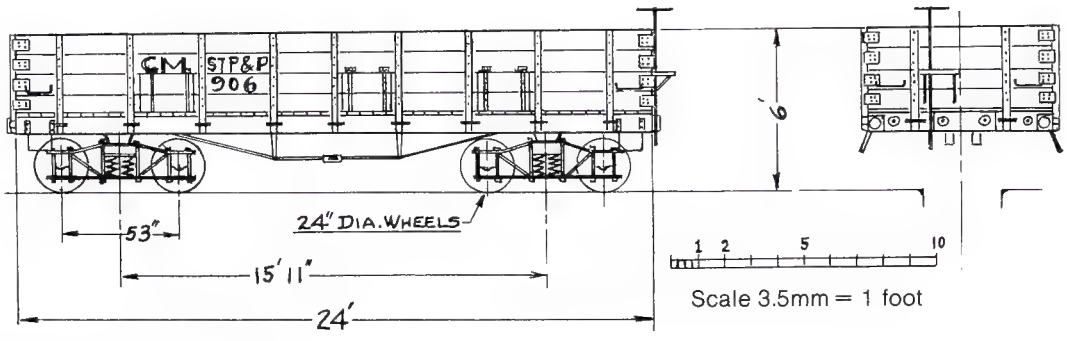


A mixed train entering Zwingle with combine #02699 about 1930. ***Photo, collection of Albin Lee.***

NARROW GAUGE GONDOLA (3' GAUGE)

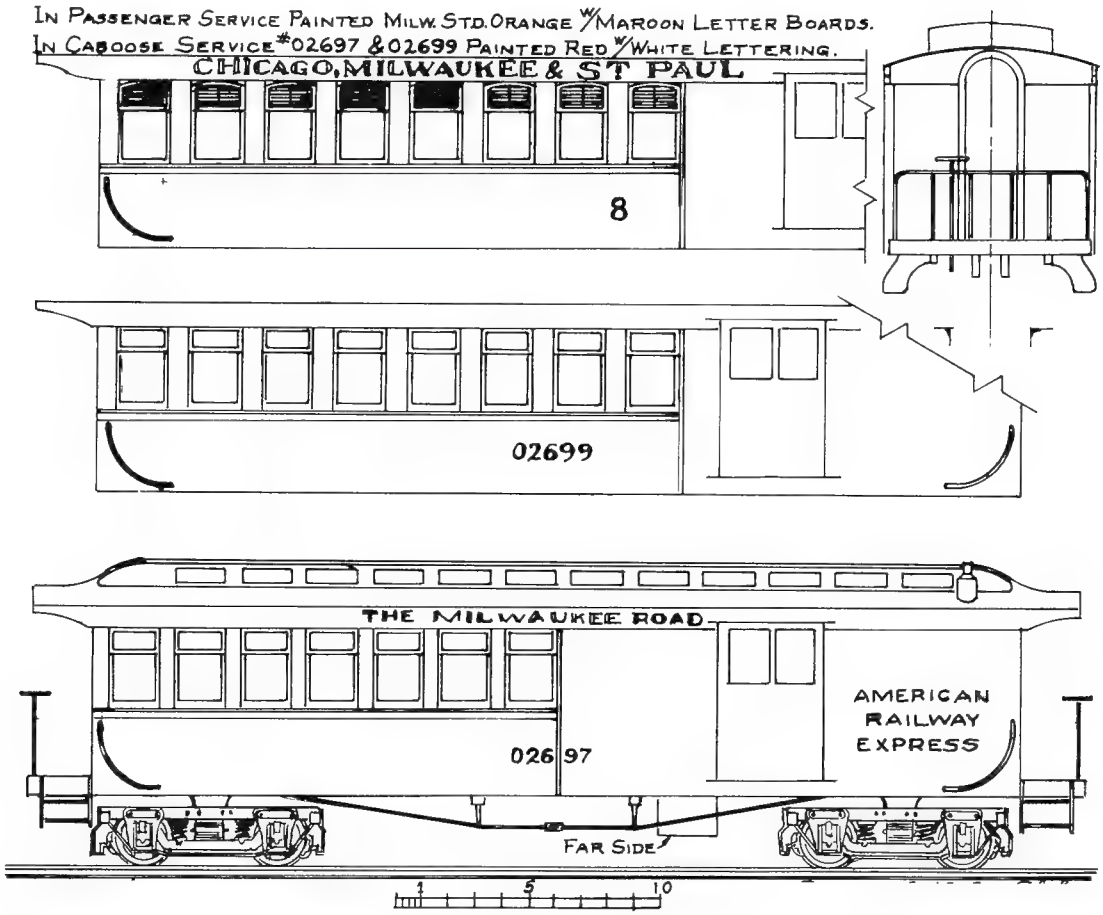
CHICAGO, BELLEVUE, CASCADE & WESTERN RAILWAY (1879 TO JUNE 1880)
CHICAGO, CLINTON, DUBUQUE & MINNESOTA RAILROAD (JUNE 1880 TO OCT. 1880)
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY (OCT. 1880 TO MAR. 1933)
BELLEVUE & CASCADE RAILROAD (MAR. 1933 TO 1936)

NUMBERS 906 THRU 915 BUILT 1930, NUMBERS 900 THRU 905 BUILT 1903-1906, 16 TOTAL CARS
7/19/59 A. LEE, REVISED & INKED 3/28/78



BELLEVUE & CASCADE BRANCH

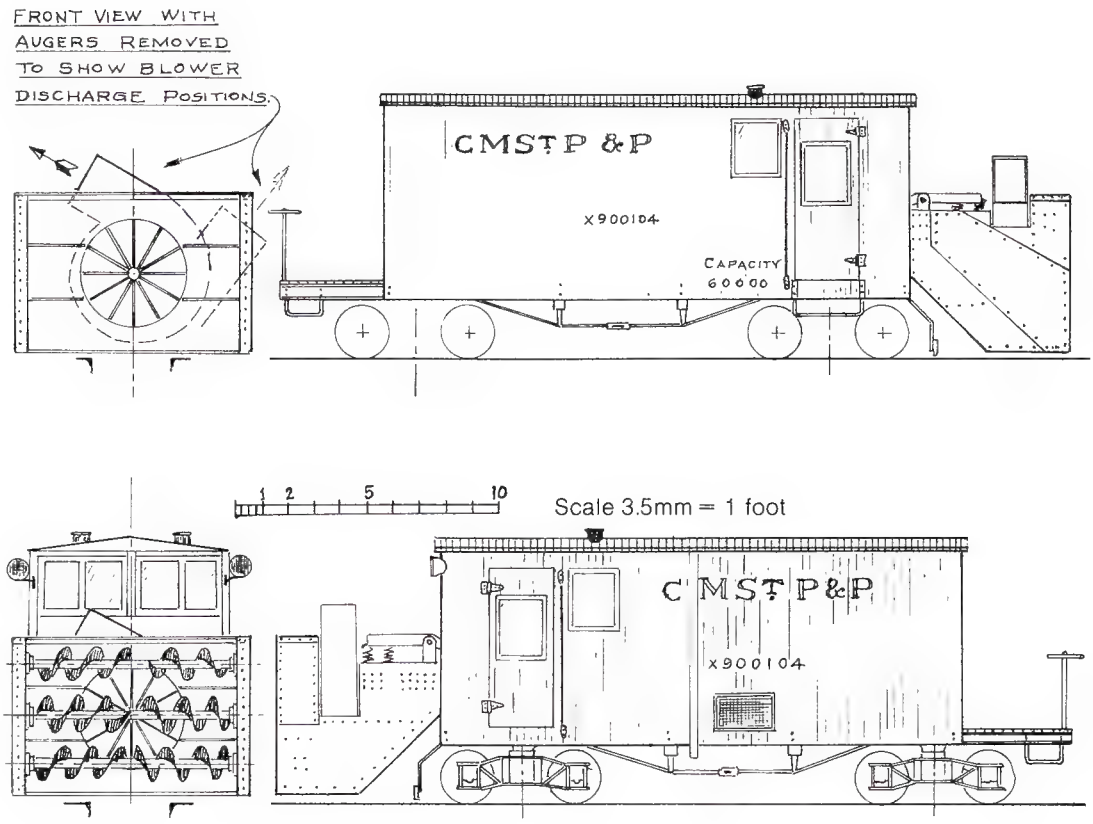
6/10/55 A. LEE, REDRAWN & INKED 8/15/78



Scale 3.5mm = 1 foot

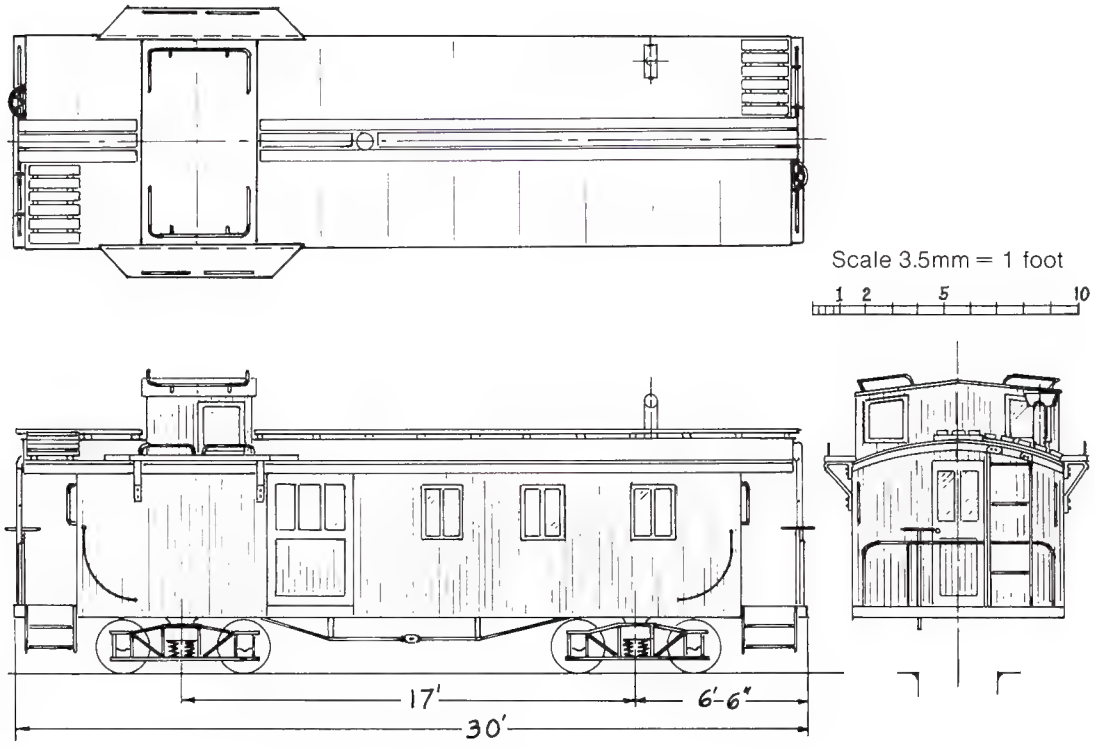
Combine #02697 photographed in 1934 when she was painted red and used as a caboose in mixed train service. This car was originally painted in Milwaukee Standard Orange with maroon letter boards when used in passenger service. *Photo, collection of Albin Lee.*

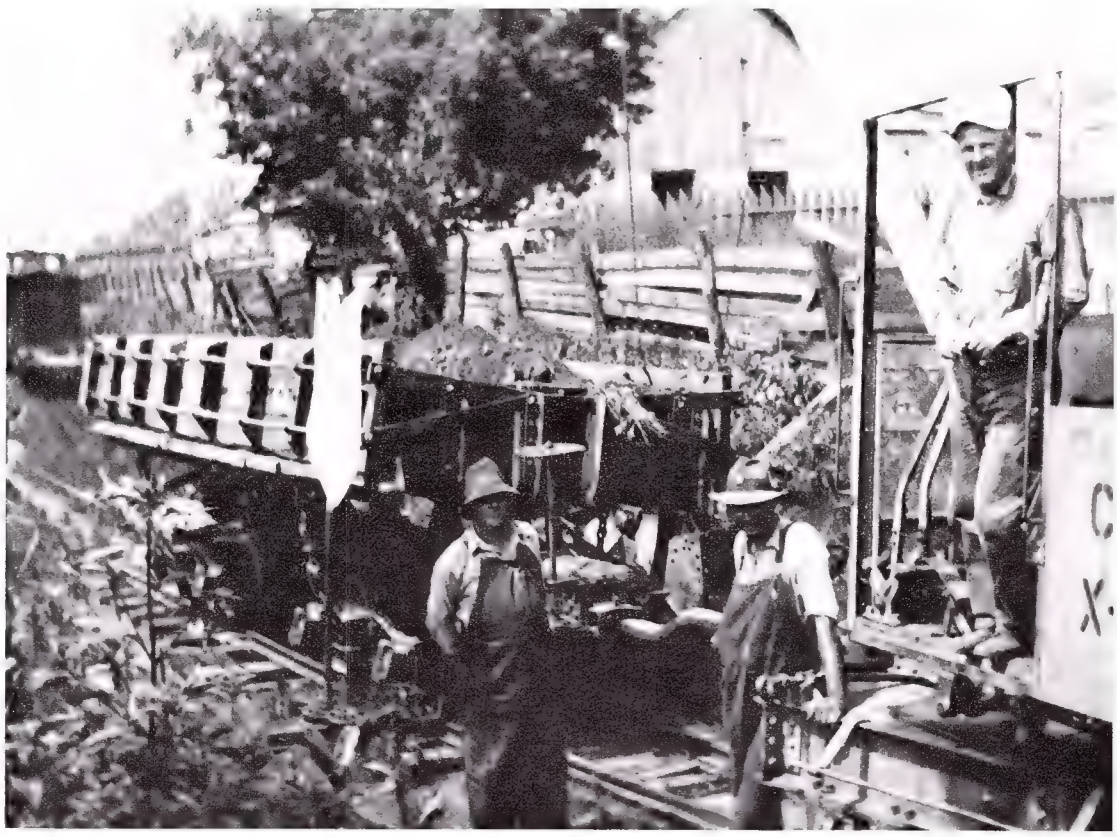
ROTARY PLOW (3' GAUGE)
BELLEVUE & CASCADE
MILWAUKEE ROAD
X900104, BUILT 1929
9/23/55 A. LEE, REVISED & INKED 3/9/78



Rotary plow #X900104 as she looked about 1940. *Photo, collection of Albin Lee.*

THE MILWAUKEE ROAD'S CABOOSE #055
FOR THE NARROW GAUGE BELLEVUE & CASCADE BRANCH
9/1/76 A. LEE, REDRAWN 3/26/78



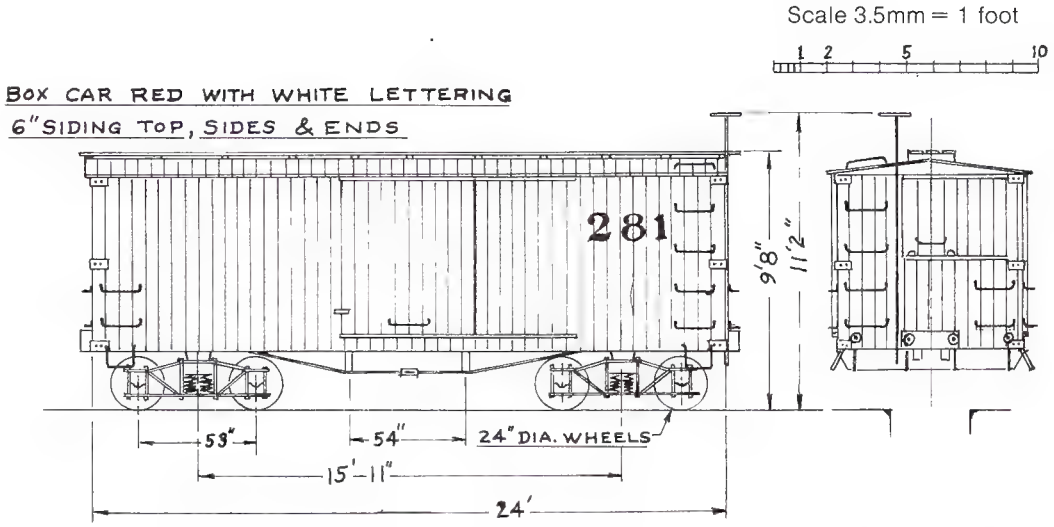


A work train at Zwingle. Note caboose #055 aways down the track. The air dump car is either #X-905037 or X-905038. *Photo, collection of Albin Lee.*

NARROW GAUGE BOX CAR (3' GAUGE)

CHICAGO, BELLEVUE, CASCADE & WESTERN RAILWAY (1879 TO JUNE 1880)
CHICAGO, CLINTON, DUBUQUE & MINNESOTA RAILROAD (JUNE 1880 TO OCT. 1880)
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY (OCT. 1880 TO MAR. 1933)
BELLEVUE, & CASCADE RAILROAD (MAR. 1933 TO 1936)

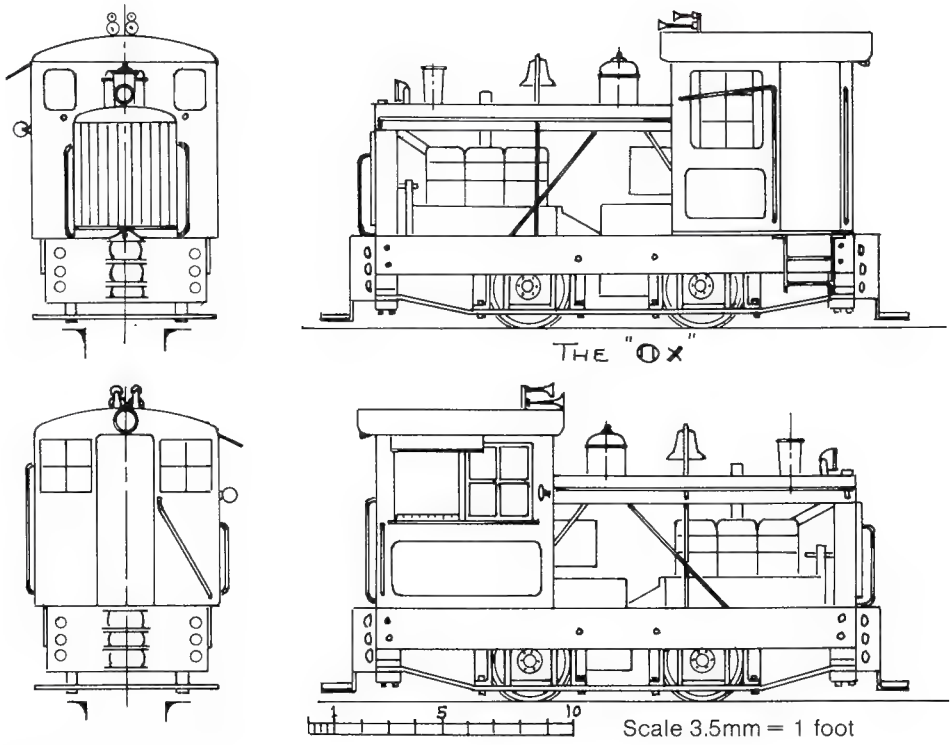
200 SERIES BUILT 1878, 400 SERIES BUILT 1913
8/3/55 A. LEE, REVISED & INKED 3/29/78



THE "OX"

BELLEVUE & CASCADE RAILROAD (MAR. 1933 TO JAN. 1936)

11/28/55 A. LEE, REDRAWN & INKED 8/15/78



Finescale ON3 Rebuilding Techniques

Part IV: The Balboa C-19 Becomes RGS #41

by Kelley Morris
Photos by the author

In Part I of this series, which appeared in the Sept./Oct. issue of the **GAZETTE**, *the author introduced his series on updating older imports to today's standards. In Part II, which appeared in the March/April issue of* **GAZETTE** *the author described the detailing of the cab front, the air pumps, running boards, and other superstructure details. In Part III, which appeared in the July/Aug. issue of the* **GAZETTE** *the author described the cab interior details and the final superstructure detailing.*

This article continues the saga of building RGS #41 with the engine frame. A checklist for work involved, includes the following: frame cut-outs, firebox, cylinder modifications, pilot deck and cage, lead truck, brake shoes, springs, brake cylinders, blow off cock, valve mechanisms, valve lubricators, pilot airline, lift ring brackets, cutting lever and coupler, cylinder linkage, grate linkage, reverse lever, main rod ends, drawbar, motor and drive mechanism. Two things not covered in Part III will also be mentioned: the small brake reservoir and the engine end-beam buffer plate.

Step 1: Backtracking

The engine end-beam buffer; P.S.C. #P.S.H.-4060 must be applied to the super-structure. It is simply soldered to the center underside of the Balboa cast cab support/end-beam, with the curved portion facing outward. The brake reservoir; Backshop #AP-158 is applied by sweat soldering to the underside of the right rear cab floor. Careful use of the #2 tip is mandatory. Refer to the series "Straight Talk about Bent Pipes" if the .005 reservoir line is to be attached.

Step II: Main Engine Frame Modifications

There are three frame cutouts necessary. These are made as shown with a #2 jeweler's saw blade. This will be accomplished in the easiest manner by first: coating the outside faces of the frame sides with machinist's dye; a bluing liquid available at most tool supply houses, second: scribing (directly on the sides) marks indicating the cutout areas, third: drilling holes (identical side-to-side) inside or in the corner of each area and fourth: inserting the blade through both sides' holes and carefully piercing out each area. It will prove wise to locate exact brake shoe pivot points and drill them out in advance of the piercing. The location can best be determined by inserting the drivers temporarily in the frame. Notice that a single solid area must remain around both the rocker arm pivot hole and its adjoining brake shoe attaching point. Truing up of these cut-out areas may be done with #2 cut needle files. Once these locations are all pireced and the appropriate holes are drilled, the brakeshoes: Backshop #BS-016 may be soldered in place. At the risk of losing the potential for brake rod detail, the pivot straps on the back side of each brakeshoe may be cut off to facilitate easy removal of the driver retainer plate. If this detail is desired, cut six appropriately spaced notches to clear the strips. Be prepared to unsolder the rods if any need to disassemble the completed engine arises.

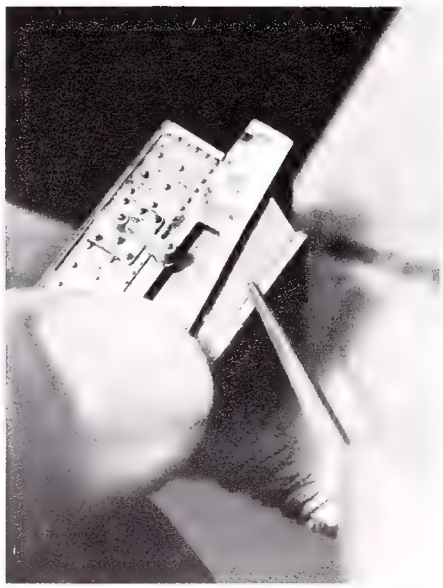
Note: The firebox and spring detail may present possible "short" situations. After these details are added, again test fit the drivers and make sure of adequate clearance on both these and the brakeshoes. On the subject engine, the firebox rivet detail (behind the rear driver) and the driver spring pedestal straps, all on the left (insulated driver) side, had to be reduced by filing to eliminate intermittant small electrical shorts.

The firebox is made up from a Kemtron C-16 part: #3061. Trim the sprues from each end and cut through the casting on the two joints of what would normally be the front bed locations. The two sides are reversed side-to-side and soldered on so the "front" stay is centered between the third and fourth drivers. Small filler strips (1/32 inch x 3/32 inch) must be soldered to the top and rear end of each side to eliminate gaps at the frame/superstructure joints. Round the ends of the remaining piece; the firebox front, to create a prototypical shape. Solder this to the front of the two sides. A Backshop blow-off cock; #BC-057 is attached on the left side as shown. Be sure to cut off all but 1/16 inch of sprue so there is no protrusion into the firebox.

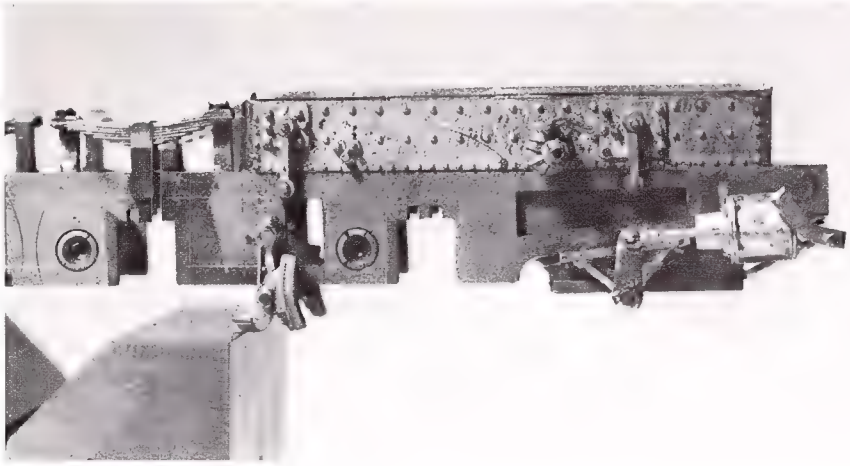
The 6 driver springs; Backshop #DS-096 are placed directly (centered) above each journal opening, and attached with the "small ball" technique. As with the brakeshoes, be sure to clean off all sprues, etc. Some beveling of the spring strap ends will be necessary to allow the boiler to fit fully onto the frame. Note these equalizing strips are facing the inside of the frame.

The rear frame area may be finished with the addition of the brake cylinders: B.S. #BC-082. The cylinder lever pivot brackets: from Kemtron set #3092 must be attached first. Note the positions in the accompanying photos. Hold each bracket in place against the ash-pan and scribe on each side. Use a 3 or 4 cornered needle file to break through the small ashpan rim. Lightly heat the obstructing piece and remove it with tweezers. Sweat solder each bracket into place. Now trim and thin the levers from the Kemtron brake cylinders and add them to each bracket pivot point. Position each B.S. cylinder and solder the clevise to the lever. For more strength and detail pre-drill the back of each cylinder (#71) to accept a .025 wire. This wire may be formed around the rear of the frame (to clear the drawbar) and soldered in place. Note that the pilot flag holders come from the Kemtron set also.

The grate linkage is simply duplicated by soldering a .035 wire to the rim on the rear of the ash-pan. It must be bent so that the end is approximately ¼ inch rearward and is ⅛ inch higher. To this wire attach a formed 1/32 inch x 3/32 inch grate lever as shown. Annealing the lever will aid in forming it.



Scoring the line for removing the rim section on the firebox. This will allow for the brake cylinder placement.



The rear of the frame showing the last cut-out, spring, firebox, blow-off, and brake shoe and cylinder locations.

The focus of our efforts now becomes the pilot area. The Backshop C-16 project aids us here, as the new (part no. unknown) pilot deck casting is ready made for our situation. Cut the frame horns from the casting at the front end of the steam chest opening and silver solder (hard) a 1/16 inch long section to each of the remaining ends. The Balboa frame horns are cut off horizontally as shown. Cut the sprue from the casting and true up the front brackets to accept the pilot beam. Make up the beam from 3/16 inch x ¼ inch stock, 1¾ inches long. Assembly of this section starts at the pilot cage. Cut all sprues and flashing from the cage and backing/step plate; Kemtron #6438, and silver solder (hard) the two together as shown. Be sure a 90° angle is achieved between the plate and the bottom of the cage. Solder the coupler pocket (from the same set) in with hard as well. Be sure to clean (pickle), rinse and dry between each soldering operation. Hard solder the lift ring brackets; Kemtron #3088 and the pilot air line and lead truck pin (small turning) to the pilot beam and pilot deck castings respectively as shown. Note that the air line uses a P.S.C. pipe bracket and is left straight out past the beam until the entire unit is assembled. Be sure to heat these pieces from the heavier piece — not directly at the small detail — otherwise small puddles will result. The last two seams are the pilot assembly to the beam (medium) and this unit to the deck plate (easy). The #4 tip may be used here. Again — careful with the heat. You may also find it expedient to add the apron plates (cut from the old Balboa deck plate) with easy as well. Use a #2 tip here. Clear the flashing from the coupler pocket, drill out the pocket and coupler holes and mount the coupler (Kemtron #3040 or equivalent) with a small escutcheon pin. Drill the tops of the beam ends, insert the flag holders (already mentioned) and soft solder in place.

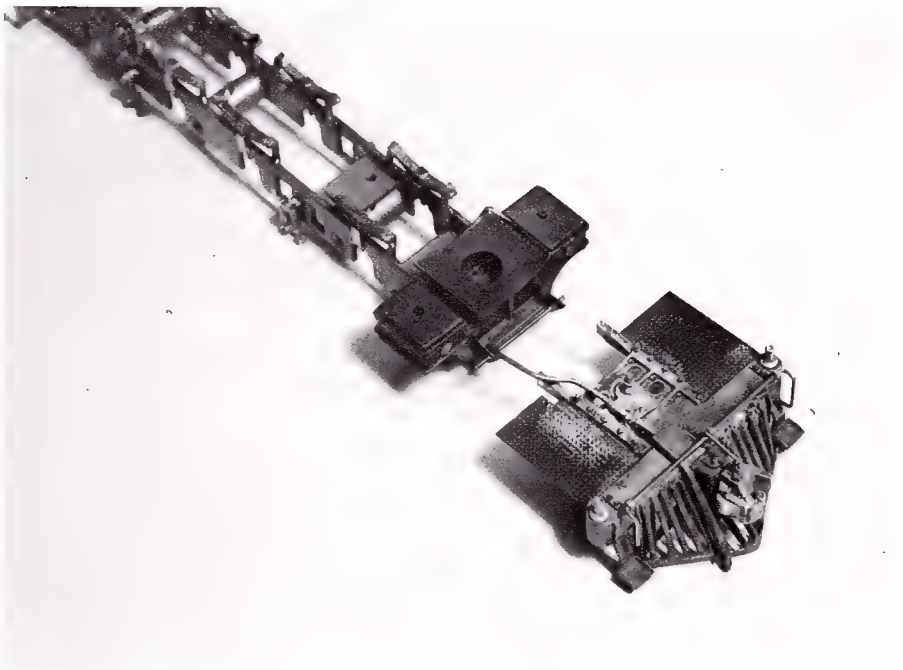
If you have not already done so, clear out the lift ring holes to accept the .025 cutting lever bar. Bend one side as shown, insert the lever bar through the rings, and bend the other side to match. Now form a small ring in the end of the lever itself and solder onto the bar in the center. Suspend the lift chain over the coupler, and solder it on with the iron. Adjust the slack, solder and clip off the extra at the lever location. If working couplers are utilized, this chain must be joined at both ends with small clevises or wire loops.

Before joining the pilot assembly to the frame horns, drill matching holes in the frame just below the joint location. Insert a .030 cylinder cock lever rod and solder it in. Finally, shim up the completed pilot level with the frame and solder the final joints. Butt the pilot horn ends to the re-installed cylinder chest casting, to assure a clean and straight installation. To finish the front end, make up the two cylinder cock levers of .015 x 1/16 inch strip and solder in as shown. A short length of .020 wire from the bottom of each to the center of each cylinder will complete these once the cylider machining is done. A small clevise (Tomalco) should be added to the longer lever (right side) to accept the actuator from the cab.

Your final test fit of the superstructure to the frame will reveal the positioning of the deck braces to the pilot beam. Mark the areas contacting the beam, invert the superstructure on the edge of an anvil, and gently flatten these ends. File to a rectangular shape.

Modification of the cylinders involves a lathe. Remove and clean the cylinder cock lugs and holes. Make up a 1/16 inch or so thick strip of soft aluminum and wrap it tightly around the first cylinder. (Obviously the following will apply to both.) Grind a parting tool to a 1/32 inch thickness. Set just slightly below center, it is run straight in to a depth of 3/32 inch to duplicate the detail the prototype exhibits with the rear cylinder covers off. (Ala #41).

This operation will create a plate which should be a scale 1 inch thick, so adjust your set-up accordingly. Next, line up the tool directly on the edge of the plate and reduce its diameter to 15 inches. Machine off the remainder of the old rear cover and turn down the lip around the piston rod hole to a .020 height. If you do not own a lathe perhaps a machinist friend can do the work above for you. Now drill,



The completed pilot assembly ready to be attached to the frame.

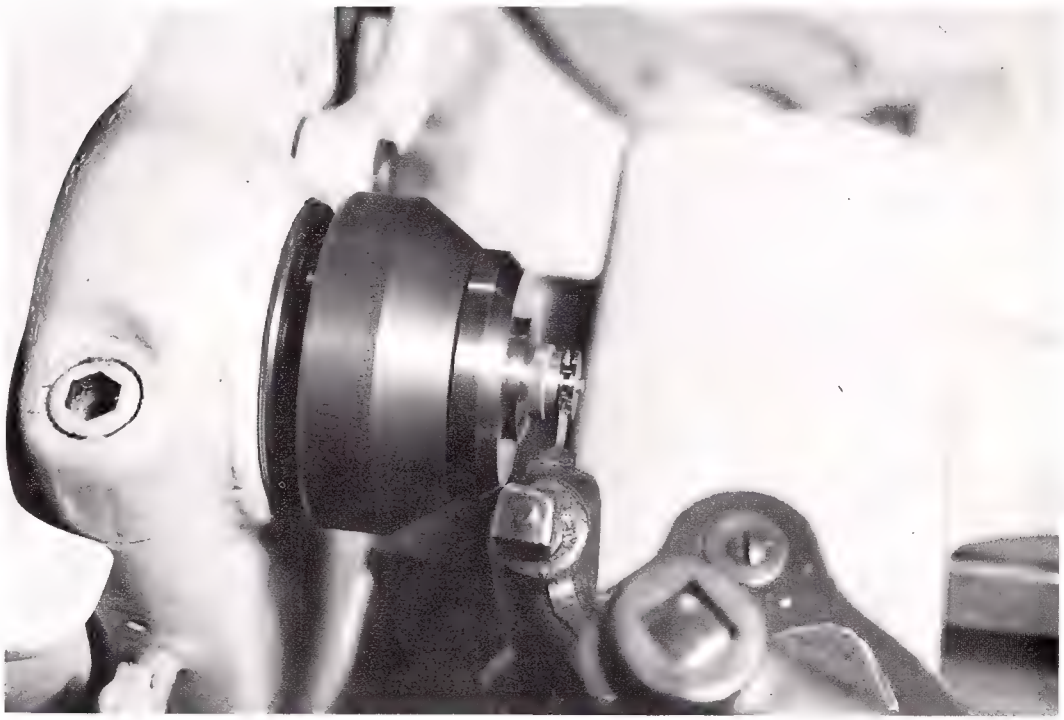
insert and solder 8 Grandt #15 hex nut/bolt castings, .035 inch in from the cylinder's edge. These castings are equally spaced around the cylinder itself; not the plate. A V-square is useful for this locating. Be sure to center "punch" for the drill holes. I use a carbide scriber. Resolder the cylinder lock lugs into their holes (soft solder) and resolder the cylinders to the steam-chest casting. Drill and solder the B.S. #CD-075 cylinder valves into the front of the valve chests. Now add a length of .020 wire between the lugs on each cylinder and add the short length from the levers to these wires as previously mentioned. Now screw the crosshead guide assembly to the frame as originally installed. As an additional interest point, add a short length of .040 wire to each top crosshead slide to represent the two oiling cups on the prototype. This completes the cylinder modifications.

later scratchbuilding articles.)

Although the reverse lever itself cannot be fit until the engine is fully (test) assembled, the arm for it may now be attached to the frame on the right side, just behind the rocker arm location. Having a good sized drawer of spare parts helps here. Failing that, one may be fabricated from sheet and wire. A .035 hole through the top of the frame and a piece of 1/32 inch x 1/16 inch strip will nicely give the correct feeling. Once the final test fit of the engine is effected, another strip of 1/32 inch x 1/16 inch brass may be fit for the actual reverse lever. It may be attached by sweat soldering it to the right side running board. Note that the rear end runs through the previously cut hole in the bottom right cab front to the reverse quadrant, and the front end is formed slightly downward at the end to meet the arm. Do not solder the lever to the arm for obvious reasons.

#RB-129E rod ends can easily be fit by first; measuring the entire pivot-to-pivot length of each rod (less the end body of the Coronado piece), second; cutting the Balboa rod end off at the correct spot and filing the rod until it slips snugly into the new end, and third; soldering the new end in place. Mike the crankpin screws and drill the new ends appropriately. Then drill in the oversize (outside) recess to match the stock rod and crankpin. Finally, file away any burrs. Be careful to clamp the rod securely while drilling to avoid elongating the hole.

The lead truck is last. The new Backshop C-16 part is used here, as it is much superior to the Kemtron part in detail and quite suitable for our needs. Cut the pivot end away at the spot the final curve bends in to the pivot hole. A .015 sheet substitute is cut and drilled to fit the Balboa mounting screw. This part must extend



The cylinder with aluminum sleeve being machined with a parting tool. This step establishes a rear plate.

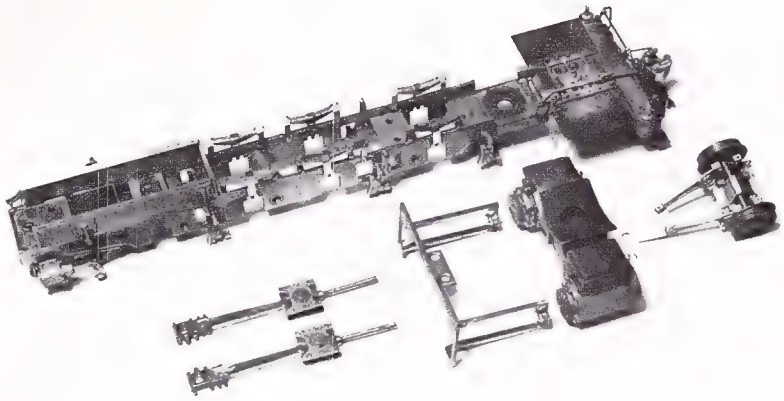
The valve rocker arms and push rods are next. Screw the Balboa rocker arms to the frame as originally installed and slide it in the stock rods. Kemtron valve gear set #3075 can add a bit more detail. It is a relatively straightforward installation, except that the rocker arms must be soldered into the frame. If working valve gear (another true "scale" detail) is desired, I believe the old Leetown C-16 set is available from Precision Scale. This will require disassembling the second driver set, installing the eccentrics on the axle (only 2-one on either side of the gearbox) and modifying the frame for clearance. If you have not done this type of work before, you might be wise to pass up this modification until a little more experience is gained. (This is good subject matter for

The motor mount and draw bar modifications are both minor. The motor mount must have 1/16 inch removed from each side. A #3 jeweler's saw blade is fine for this. Once complete, the mount may be screwed back in as per the original. The drawbar need only be formed around the buffer plate (soldered onto the superstructure at the beginning of this article). Two pair of flat nose pliers will work fine for this. It may be necessary to lightly bevel the back of the plate for clearance. If you have not already done so, install the drawbar and the frame modifications are complete.

Before mounting the motor, two final items must be altered to complete the entire engine modification program. First: the main rods. Coronado Scale Models

the pivot point approximately ⅜ inch rearward on the truck. The best reference point for measurement is the frame itself. Invert the engine, position the truck pin at the pilot pin location and measure for a perfect alignment. The pencil iron will provide sufficient heat for soldering the plate to the truck. The Grandt 24 inch pilot wheelset is secured by a formed plate (see photos), carefully soldered to the truck casting.

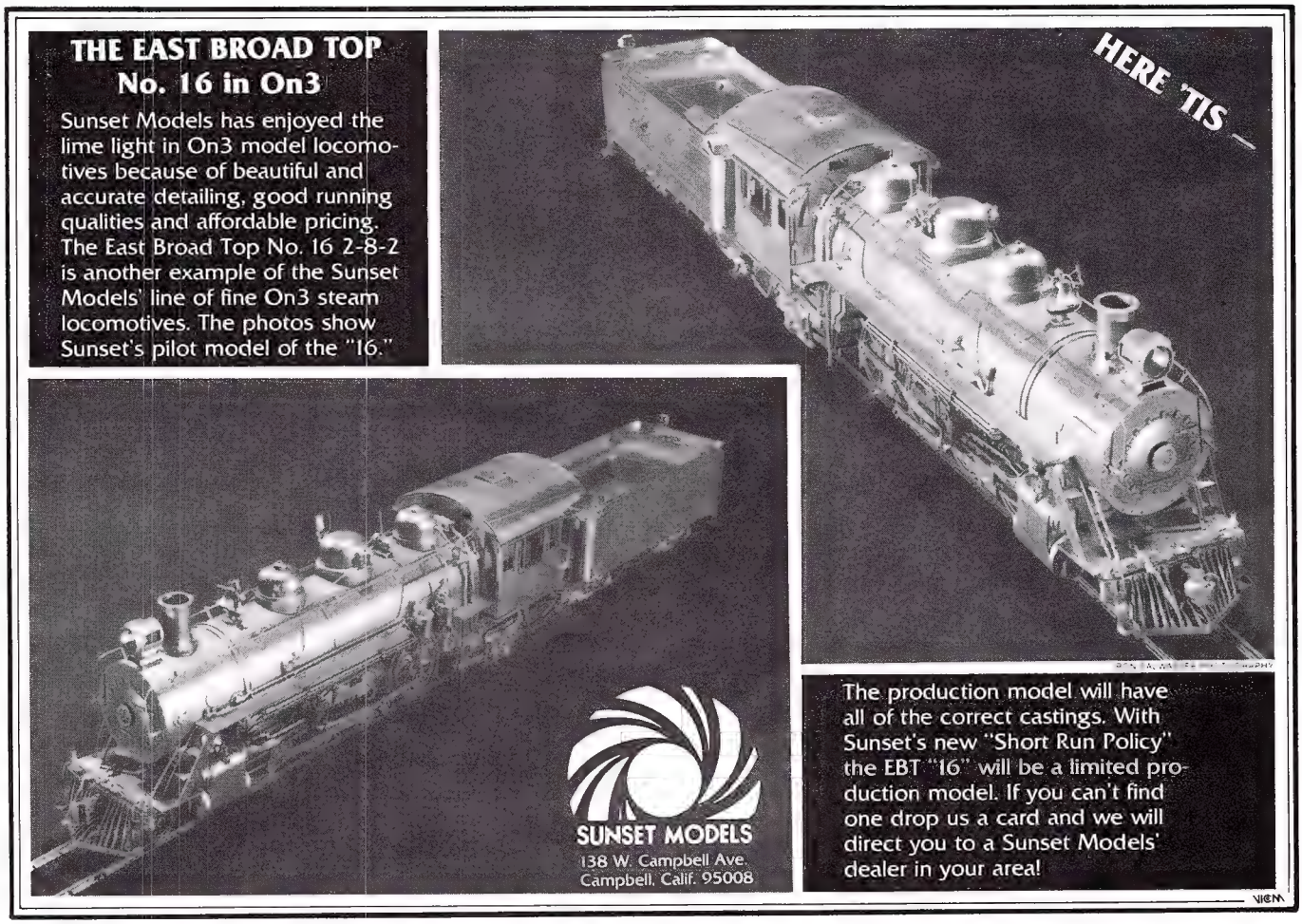
Finally we arrive at the motor. A Coronado 2:1 gearhead micromotor is used in the #41. Although a rather slow top speed results from this installation, phenomenal low speed performance is possible, assuming the drive train is completely free of binds. The now traditional silicon bathtub caulk motor mount is



The completed frame components. The modified cylinders, rods, and lead truck are shown.

utilized (actually this is done twice if you wish to test run the engine before painting it). Unfortunately, the motor mount screws are inaccessible once the silicon is in place. However, if the mechanism is free to your satisfaction there is probably no need to do the first mounting.

Painted or not, remove the brass motor-mount. Scrape clean a spot around one screw hole for the ground wire, attach a terminal under the screw, and reposition the motor mount. Reinstall the drivers and gearbox (more on this in the painting article). Now cut a short length of silicon rubber (model airplane) fuel line for use as a U-joint. Slip it onto both the gearhead and gearbox shafts and allow the motor to settle comfortably into a small puddle of silicon spread on the brass mount. Nothing to it! Make sure the shafts are in a good straight alignment and that adequate clearance exists between the motor and the backhead location. Allow the silicon to set for at least twelve hours before moving. Finally, solder both motor leads to the ground terminal and drawbar terminal respectively and you're cleared for Muldoon!


THE EAST BROAD TOP
No. 16 in On3
Sunset Models has enjoyed the lime light in On3 model locomotives because of beautiful and accurate detailing, good running qualities and affordable pricing. The East Broad Top No. 16 2-8-2 is another example of the Sunset Models' line of fine On3 steam locomotives. The photos show Sunset's pilot model of the "16."
HERE 'TIS —
SUNSET MODELS
138 W. Campbell Ave.
Campbell, Calif. 95008
The production model will have all of the correct castings. With Sunset's new "Short Run Policy" the EBT "16" will be a limited production model. If you can't find one drop us a card and we will direct you to a Sunset Models' dealer in your area!

The MODELMAKERS NOTEBOOK

by AL ARMITAGE

Just about everything that goes on a model railroad gets painted, presumably to match some prototype color scheme. For locomotives and cars, there are ready-mixed paints keyed to the "standard" colors of a wide variety of railroads. There are, also, paints which represent dirt, grime, soot, and rust. The final finishing paint job may be the most important part of a project and really makes (or breaks) the illusion of reality in a model.

What do you when you can't find just the right color on your dealer's shelf? I simply make up the desired color from others on hand. To many people, however,

the art of mixing colors seems to be shrouded in mystery. Therefore, a discussion of the fundamentals of color may be useful to modelers. There are some basic principles which make it easy to mix your own colors. There's no magic involved, just a few rules to follow.

Before a model is weathered, it has to be painted in the proper color scheme. Whatever these colors happen to be, they should be chosen to be compatible with the appearance of the weathered model. This doesn't necessarily mean that the colors must represent the way the car or structure looked when new. The colors should be close to the condition of age or period of time you wish to show. Before you paint any model, decide on how much weathering you want, if any. Suppose you've built a red barn that you want to end up with a faded, long-neglected look. Now, much of the neglect can be (and should be) built-in during construction but color is most important in producing an aged appearance. If you paint your barn in new red, you'll be faced with a major weathering job. Why not paint the barn with faded red to begin with and make the weathering a whole lot easier?

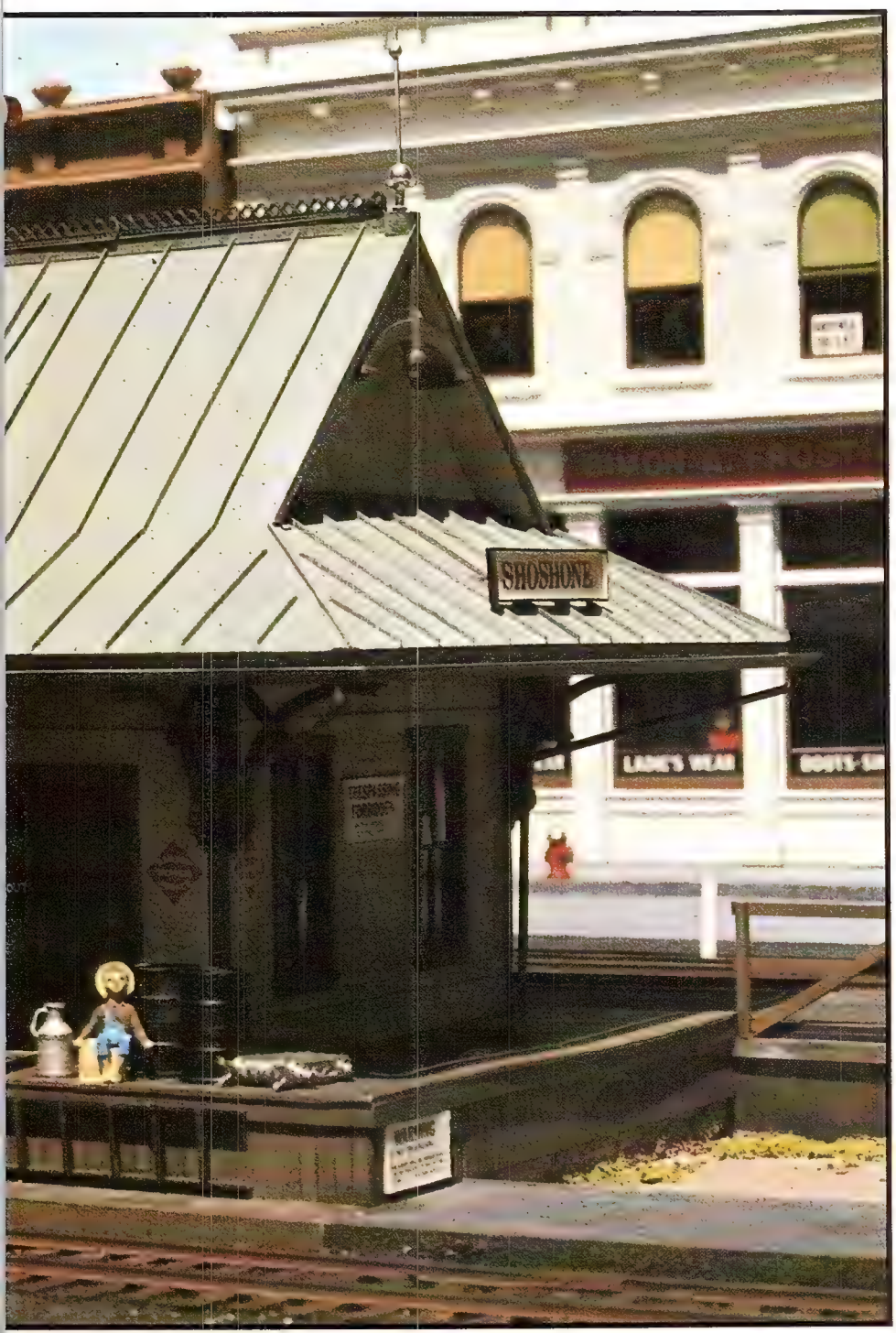
What color is faded red? Well, that depends on what the original red looked like. Was it dark, light, dull, bright, brownish, or what? Could you recognize these qualities in a color and mix a color to match? To get the most out of painting, it is essential to know something about colors and how to control them to achieve the effect you want.

First, let's consider some of the basic rules of color. I'm sure most of you know that the three primary pigment colors are red, yellow, and blue. The secondary pigment colors are orange, green, and violet, which are made by mixing two of the primary colors in equal amounts. Red and yellow make orange, red and blue make violet, and blue and yellow make green. Tertiary pigment colors are a combination of primary and secondary pigments. Red-orange and blue-green are examples.

Figure 1 is a color wheel showing the relationship of pigment colors. The triangle indicates the primary colors while the dotted line connects two of the complementary colors. Any two colors, directly opposite on the wheel, are complementary. Either one can be the key color while its opposite becomes its complement. Blue is the complement of orange and orange is the complement of blue. Mixing a color with its complement subdues and kills its brightness. Only a slight amount is needed to accomplish this and it is one of the most useful ways to control colors.

You can get a color wheel from your local art store. A good one will have a rotating face, with cut-outs, to show various color combinations and what happens when different colors are mixed together. They are not expensive and effectively demonstrate the relationship of colors.

Any color can be described by three basic terms: hue, value, and intensity. Hue denotes the color, red, blue, etc. Value indicates whether it is dark or light. Intensity refers to the brightness, or dullness, of a color. The terms "shade" and "tint" are often used in connection with colors and are merely another way of stating the value. Shades are darker values, made by adding black to the color, while tints are lighter values resulting from the addition of white. Chroma is often used to mean hue, and saturation may be substituted for intensity, but they amount to the same thing for our purpose.



A classic narrow gauge 4-4-0 simmers in the morning sun on the Precision Scale Models diorama which was built by Al Armitage. Notice the use of muted and subtle colors both in the foreground and in the background. Those Victorian buildings in the background are castings and are only an inch or so thick. ***Photo by Ron Morse.***

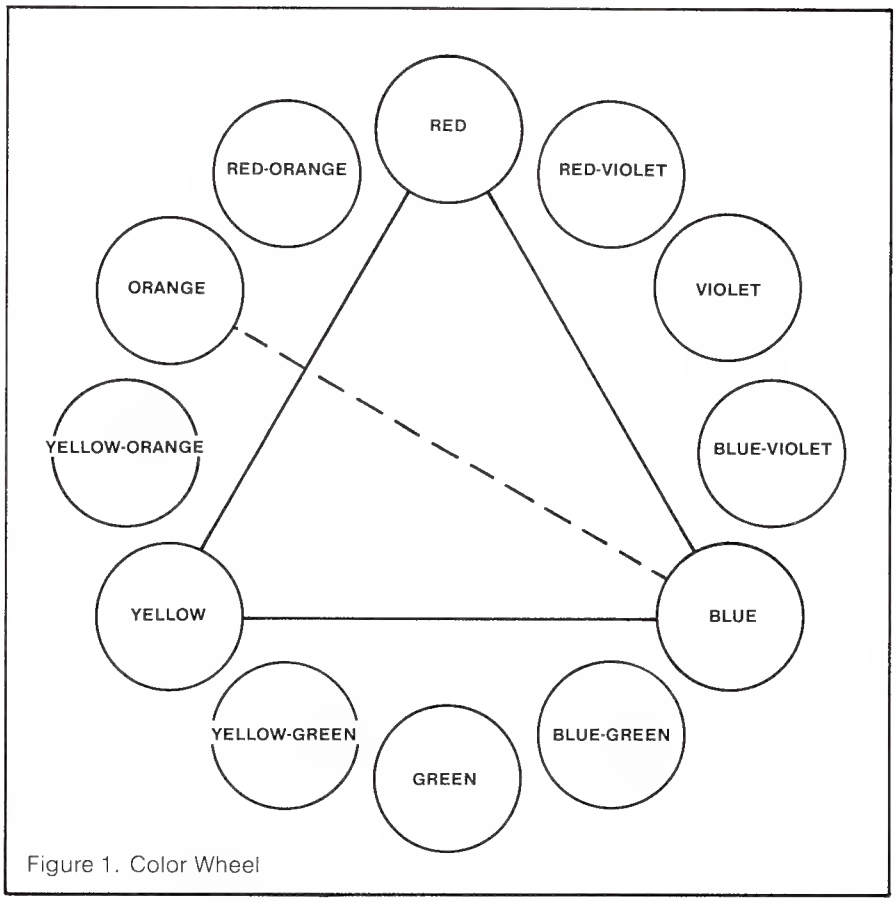


Figure 1. Color Wheel

We have been discussing pigment colors; lighting engineers deal with spectrum colors. Spectrum colors can be seen by projecting a white light source through a prism which splits the light into various wavelengths, each of which forms a distinct color. Not all of the electromagnetic spectrum is visible to the human eye. We fail to see infra-red and ultraviolet. White light is the "presence" of all colors and total darkness, or black, is the absence or all color. This applies only to light; paint is a different matter. Mix any four colors together and you get a neutral tone referred to by artists as "mud". Not a bad earth color for scenic use.

The reason that objects appear to be a certain color is that they have the property or reflecting one, or more, of the wavelengths which the eye registers as colors. There is usually more than one type of pigment present in a given substance, thus pure colors are rarely seen in nature. The kind of light governs the quality of the color also. The same color appears different in direct sunlight than it does in shadow or in artificial light. Other colors, reflected from nearby objects may affect the apparent color too.

Nearly all of the pigments which impart color to paints come from natural sources such as minerals, oxides, clay, etc. The exception is dye pigments which produce brilliant colors but are so transparent that the paint won't cover worth a darn. Most pigments are solids ground exceedingly fine and mixed with a vehicle, and a binder, to form a film coating. In oil paints the vehicle is linseed or other natural oils. The binder is usually a natural resin called a varnish.

Acrylics and vinyls are apt to be made of a variety of synthetic ingredients. Many enamels and lacquers are now made with synthetic materials, also.

One of the problems in describing colors is the endless variety of imaginative names applied to a given color, like "teal blue" or "penguin white". Fine, if you're a bird watcher. Every paint manufacturer wants to be different. The same color can have a dozen different names depending on what decorator styles happen to be in vogue or what the advertising department thinks is a good salable name. Artist's colors, however, usually carry names related to the pigment that establishes their color, such as Cobalt Blue, Cadmium Red, or Burnt Sienna. Cobalt and Cadmium are minerals while Sienna is a clay named for the area in Italy where it is found. There is a fairly limited number of standard colors used by artists, so that one can soon learn to identify them by name and recognize the color. Though we are not going to use artist oil paints on our models, we can use the paint colors as a guide in mixing railroad paints. So, while you're in the art store buying a color wheel, get a color card put out by a paint manufacturer. The card may show full strength color, how it appears as a glaze, and as a tint. The glaze is of no use in model work so forget about it. The tint merely shows the color with white added. It doesn't really matter what type of paint the card represents since the colors will be pretty much the same for oils, casein, gouache, or water colors regardless of manufacturer. The card will serve as a reference for choosing matching colors from railroad paints.

It is *not* advisable to intermix different brands of paint. All paints are not made of the same materials so there may well be non-compatible elements in two different brands. Of course, lacquers don't mix with enamels and water-soluble paints don't mix with oil base paints.

The next thing is to determine what colors you use in modeling. You will need a palette of stock colors from which you can make all the color variations you'll require. In theory, you could make everything from the three primary pigment colors. It is better to have an assortment of basic colors including, for example, yellow ochre, burnt sienna, burnt umber, thalocyanine blue, viridian, cadmium yellow medium, cadmium red medium, black, and white. That's about the minimum. I add a few grays, a medium green, and a good light brown. You may find other colors more suitable for your particular uses, of course. Remember, you are not starting from scratch to make a color. You are modifying a color to make it better suit the situation. Once you have chosen the color scheme for a model and decided on the weathering, figure out how to alter colors you have to suit. Start with a color that is already leaning in the proper direction to minimize the amount of mixing required. Take bricks, as an example. Do you visualize a faded pinkish color for a certain building? Then choose a light red and reduce it with white. If you prefer a brownish-red, start with burnt sienna and lighten it to suit. If it seems too bright, add a touch of a complementary color to subdue it. Should your choice be a dark red brick, pick a dark red paint and add black.

Stir all paints thoroughly before mixing so that all the pigment is evenly dispersed throughout the paint.

When mixing any light color, always start with white and add the color to it. A little color goes a long way – especially dark colors. You can add more color if needed but, if you overshoot it takes a bucketful of white to get back to what you wanted in the first place. A little experience will teach you the proper quantities. Experiment with small amounts on a sheet of glass, mixing a drop or two with a small brush to see what happens. When you are ready to paint mix enough color for the job at hand. It is far better to have some left over than to try and mix a second batch to match the first.

Colors are classed as either cool or warm tones. Reds and yellows are warm colors; greens and blues, cold colors. Grays can be either warm or cool depending on whether they are made with orange or blue as the qualifying color. Almost any gray will be more interesting if it has a little

color in it. A slight violet cast in gray shingles, for instance, is very effective and a hint of burnt sienna adds warmth to old, weathered wood. The extra color should not be obvious so don't overdo it.

It may surprise you to learn that black, as well as white, can be both warm or cool. Blue-black is considered cool while a brownish-black is warm. White, with a touch of blue, is cool and, with just a hint of yellow, it's warm. The use of a little color in whites, blacks and grays adds much to the effectiveness of the color scheme.

The colors of nature vary with the light illuminating the object. Sunlight is our strongest natural light source and we are accustomed to reading colors according to the way they appear in daylight. We see these same colors differently indoors under artificial light. Artificial light is not nearly as strong as sunlight and also has a much different color temperature. Fluorescent lighting tends to be cool, somewhat blue in character, especially if daylight type tubes are used. Incandescent lighting has a reddish cast to it so is warmer. Thus, lighting should be considered when painting scenery and structures. If you have fluorescent lighting on your railroad, make the colors slightly warmer than normal. For incandescent lighting they should be slightly cooler in tone. Because of the weaker level of artificial lighting when compared to sunlight exaggerate slightly the intensity, or brightness, of colors on structures and scenery. This should be a subtle effect and not obvious. Ideally, you should mix your colors, and do your painting, under the same lighting conditions in which the finished model will be viewed. To convince yourself of the importance of this fact, take a model you have painted under one type of lighting and view it under another type or, better still, take it outdoors in the sunlight.

The greatest enemy of color in scenery is the inevitable coating of dust that gathers on everything and neutralizes all colors making them gray and dead. Increasing the intensity of your colors helps. But a periodical house cleaning, with brush and vacuum, is the only real solution.

For painting models, and scenery, flat paints are preferred in most cases. They don't reflect lights and gloss colors are seldom seen in nature. Even a freshly painted prototype car, or building, doesn't really look shiny except at very close range and the shine soon wears off. For a new locomotive or car semi-gloss is a better choice.

Flat colors usually appear lighter and less saturated than gloss colors even though their value may be identical. This is due to the greater reflective quality of the glossy surface. A perfect example would be the comparison between gloss black and flat black, which often seems to be gray.

For backwall scenery, flat colors are essential. Because of the large area to be painted, I suggest dry powder paints as the least expensive for this purpose. Since there are a very limited number of colors available in this form, some knowledge of color mixing is an absolute necessity. You are working with relatively large quantities of paint so be pretty sure of what you want and how to accomplish it before you jump in with both feet. These colors, like most flat paints, dry to a darker tone than they appear when wet so mix them a bit lighter then you want. To dissolve dry colors make a paste first, then add more water to bring the paint to usable consistency. A drop or two of wetting agent, such as household detergent, will help in making the paste.

There are a variety of ways to control color. To lighten a color, add white and to darken it add black. This does not change the *hue* since the color remains the same color. However, it does change the *value* of the color. To change the *intensity* of a color, you simply add a small amount of its *complement* as shown on the color wheel in Figure 1. Not enough to change hue – just enough to reduce brightness. True complementary colors are directly opposite on the wheel but you can also use colors on either side of a complementary. Instead of using orange to subdue blue, either yellow-orange or red-orange may be used. If the blue seems to have a slightly violet cast, use yellow-orange. If the blue leans toward the cooler, greenish side use the red-orange.

The one place in scenery painting where this business about complementary colors is most useful, nay essential, is in the coloring of the foliage. Green is the most common color in nature. Such an abundance of green would be overpowering if it were not for the fact that foliage is not all the same green. In nature, sunlight creates strong shadows which break up monotonous masses of one color. Notice the dull monotony of a rainy day when shadows are at a minimum. Notice that colors appear darker when wet.

You can overcome the monotony of too much green foliage, by using color perspective. Distance has an effect on colors. Greens get bluer as they recede from the eye. All colors tend to appear lighter in the distance. Haze and other atmospheric conditions filter the light coming from distant objects.

In model scenery, it is extremely important to subdue all greens used for foliage, both foreground and background. Most commercial lichen, and grass, is far too garish a green to look natural and totally destroys whatever reality you have achieved in other aspects of the layout. Whether you paint your lichen or dye it yourself tone down the greens with red or orange so they aren't so brilliant. Use several shades of green, too. There are yellow-greens, gray-greens, and blue-greens, in varying intensities, throughout nature. Use these in coloring your foliage. Take a walk in the country or through your local park and study the colors of various trees. You'll find a green tree is not necessarily just plain green.

On your layout you don't have strong sunlight to create the shadows that form the camouflaging pattern of lights and darks in nature. The multiple light sources of most model pikes provide much too flat a lighting to give a true sunlight effect with deep shadows. So fake it a bit. Try spraying the *underside* of all trees and shrubs with a darker green to give the illusion of shadows. This helps offset the flat lighting. The backwall scenery may need shadows emphasized even though because of color perspective, things should be bluer and lighter in the distance.

Variation in the colors of buildings is important to the scenic effectiveness of a layout, also. If you have a number of brick buildings don't paint them all the same color. Give each a distinct character. Vary gray structures, too. Make some a warm gray, others cooler in tone. Gray may be made with black and white. But there are other ways to make beautiful grays. Try using burnt umber, blue, and white or burnt umber, violet, and white. If you like yellow buildings tone them down so they are not too bright. Lighten them, with white, or gray them with violet. The same for orange structures. You don't want them to stand out too strongly. White buildings look better if they have some color to them. Make a dirty white by adding a bit of brown, yellow ochre, or red-violet as a base for weathering.

Vary the color of dirt or earth around buildings. Use a light earth color around a dark building and visa versa. The locale and the type of building must have some bearing on this – you don't find light earth in a coal yard.

If you use human and animal figures follow the same principles in your choice of colors. To make a good flesh color, try white with a touch of burnt sienna and yellow ochre.

By the time you have absorbed these principles of color and put them into practice, you may have learned more about the subject than you ever wanted to. However, if you are serious about your model work it's well worth the time and effort. I'm sure you will notice a marked improvement in the realism of your models, and of your railroad, as you develop an improved color sense. Experiment with different colors. Repaint a car or a building, and see if you can't improve on your original effort. Paint a model to resemble a real car or a prototype structure whose condition you like. Study your existing railroad with a critical eye and visualize it with color principles in mind. I bet there's room for better color use.

Next time out, I'll take you on a nostalgia trip back to the good old days. See you then.

RIO GRANDE BEAR TRAPS

CINDER CATCHERS, C-19s and the C&S

by Mallory Hope Ferrell

This "Cinder Catcher" was tried out on the C&S in 1916, but proved to be less than a success. The "Bear Trap Stack" or Ridgway Spark Arrester appeared shortly thereafter. *Photo, collection of Mallory Hope Ferrell.*

Those unusual spark arresters that readily identified a Colorado & Southern narrow gauge locomotive, from the post World War I era until the three-foot gauge lines were abandoned in the late 1930's and 1940's, have an interesting and heretofore unrecorded history. Railfans call them "Bear Trap Stacks," but the exact origin of the term has been obscured by time. South Park historians Richard H. Kindig and Ed Haley recalled that none of the C&S railroaders they talked to over the years even called the cinder diverter a "Bear Trap."

Officially the stacks were known as the Ridgway Spark Arrester. Robert W. Richardson, who has read thousands of pages of C&S records, letters, bills, and ledgers, reports that in the 1910-1915 period the South Park line was plagued with fires. With great regularity, Bob reports, the C&S narrow gauge saw snowsheds, snow fences, section houses and haystacks go up in flames. Usually the cause of such conflagration was traced to hard-working engines on the steep grades. The Boreas Pass snowsheds were lost in such a fire. Elsewhere, grass fires were causing damage on the standard gauge mine run out of Boulder. The Claims Department was complaining to the Operating Department about the cost of barns, haystacks and other property that was destroyed in locomotive caused fires. In about 1912, the C&S obtained blue prints from the Moffatt Road (Denver & Salt Lake) for their smoke-box netting design in an unsuccessful effort to solve the problem.

The Colorado & Southern's Superintendant of Motive Power, H.W. Ridgway came up with an unusual spark arrester and cinder catcher which could be fitted to existing engines without major mechanical changes. The Ridgways were already well known in Colorado railroad circles. R.M. Ridgway was the first superintendent of the Rio Grande Southern, and Otto Mears renamed Dallas Junction as Ridgway, Colorado in his honor. Ridgway's son Arthur was later Chief Engineer of the Denver & Rio Grande.

A C&S drawing for the Ridgway Spark Arrester was dated July 26, 1918, but it is believed the unusual stack was in service somewhat earlier. The Ridgway Spark Arrester was tried on several standard gauge engines, but the trackage out on the plains did not seem to present the fire problems encountered on the heavy grades and helper districts of the narrow gauge. (Kenosha Pass, Boreas Pass and Freemont Pass . . . Alpine had been abandoned in 1910.)

The Ridgway device was patented by the C&S Railway on August 16, 1921. This was done to protect the railroad. They had been sued in the past over such appliances as pilot plow and automatic coupler designs, and did not intend that this should happen again. Eventually all C&S locomotives were equipped with the Ridgway Stack, however consolidation #70, used on the Clear Creek Lines had hers removed when converted to burn oil in the 1930's.

In 1935, the South Park Line (Denver to Leadville) was short of motive power and the C&S arranged to lease a trio of Denver & Rio Grande Western C-19s. The Rio Grande sent 2-8-0's #343, #345 and#346 to the C&S. The Grande Consolidations retained their lettering and numbers on the South Park ,but were equipped with Ridgway Spark Arresters and placed in service out of Denver. Number 346 was engaged in helper service on Kenosha Pass, when she derailed on July 25, 1936 at Mile Post 75. The C-19 rolled down a steep embankment scattering dome covers, cab and other fittings across the countryside. After the wrecking crew picked up the pieces, the C&S shop in Denver tried to put them back together again. The results were less than aesthetically pleasing, as the #346 gained a non-Rio Grande cab and lost her Baldwin dome rings and covers. Other minor changes were made as the pilot beam, stack and headlight were replaced. The #346 was given another Bear Trap stack and sent back on the road, where she worked with sisters #343 and #345 until April 1937, when the engines were inspected and returned to the D&RGW, sans Ridgway stacks. Thus ended an interesting chapter in the saga of the Rio Grande Bear Traps. The 343 was scrapped

in 1941, while the 345 was wrecked on July 17, 1951 for the Nat Holt film "Denver & Rio Grande," and cut-up later in the year. The 346 saw continued service on the Rio Grande and Rio Grande Southern and was sold in 1947 to the Montezuma Lumber Company for use on their narrow gauge line from Dolores to McPhee. Bob Richardson purchased the 346 in 1950 and moved it to his Narrow Gauge Museum at Alamosa. Today the engine is on display and in occasional operation at Bob's Colorado Railroad Musuem, in Golden, Colorado.

One other locomotive is known to have sported a Bear Trap. The Denver & Intermountain's standard gauge, ex-D&RG 2-6-0 was equipped with a Ridgway stack prior to 1923.

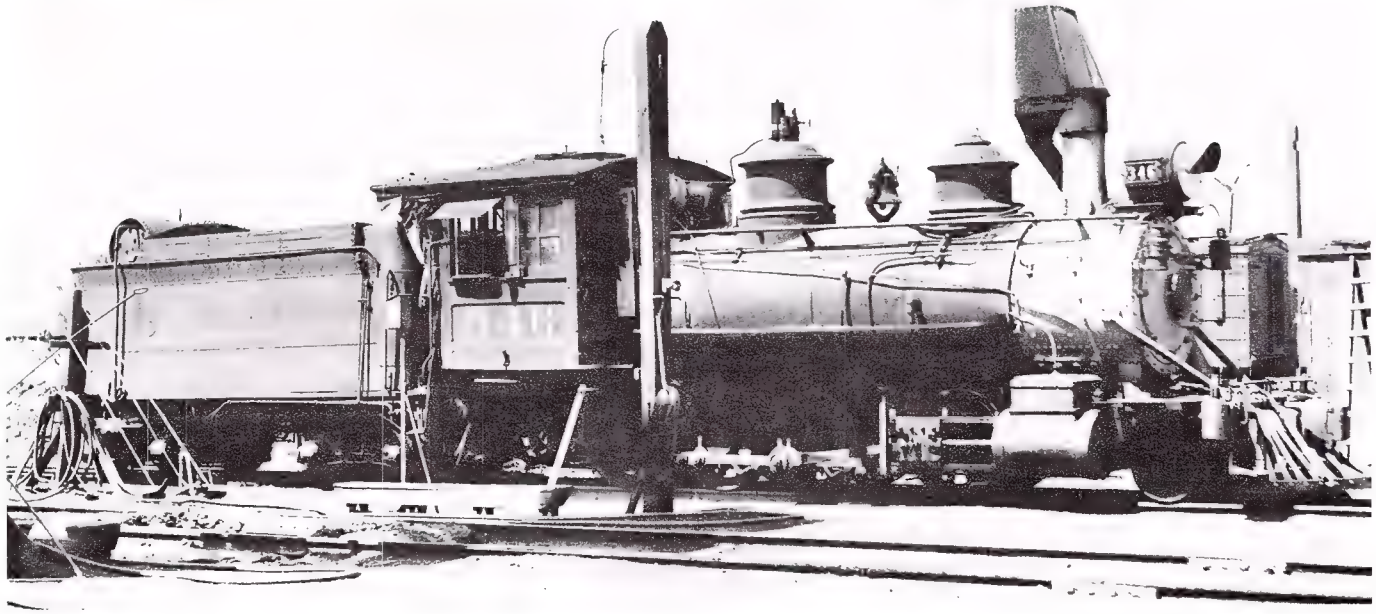
The unique cinder catchers may be measured and photographed on Colorado & Southern 2-8-0's displayed at Central City (#71) and Idaho Springs (#60), Colorado. C&S 2-6-0 (#9) on display at Hill City, South Dakota reportedly has lost her "Bear Trap Stack" in an ill-advised tourist road rebuilding and repainting.

For you 1930 era modelers of C&S and D&RGW motive power, a C-19 with a "Bear Trap" might add some interesting variety to your roster and be entirely authentic also.

Note: The author expresses his appreciation to R.W. Richardson, Richard H. Kindig and the late Richard B. Jackson for their assistance. John W. Maxwell's plan number C-11 shows the unique Bear Trap Stack.

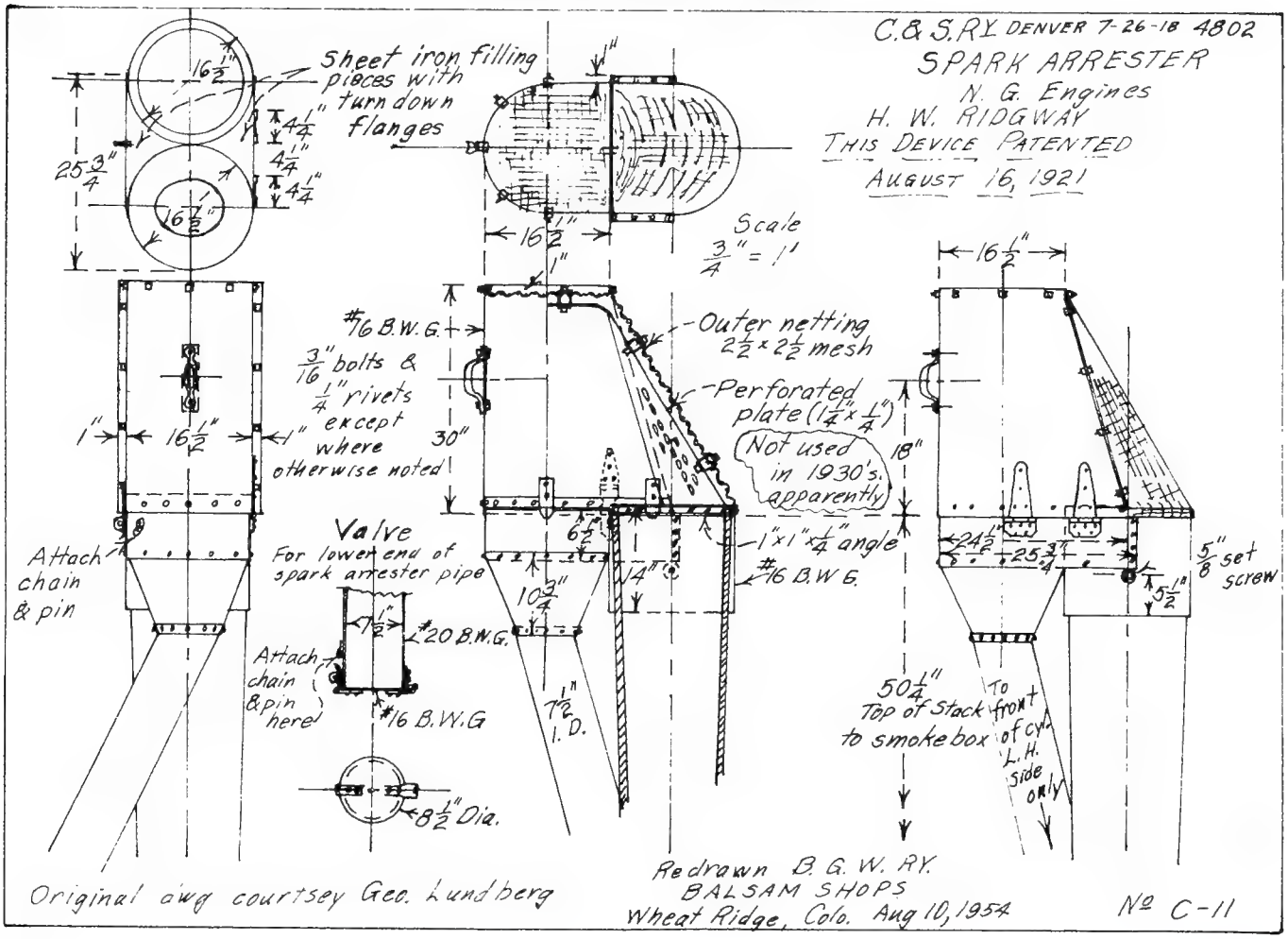
D&RGW #346 on the C&S after rebuilding in 1937. This locomotive was wrecked in 1936. ***Photo by R. B. Jackson.***

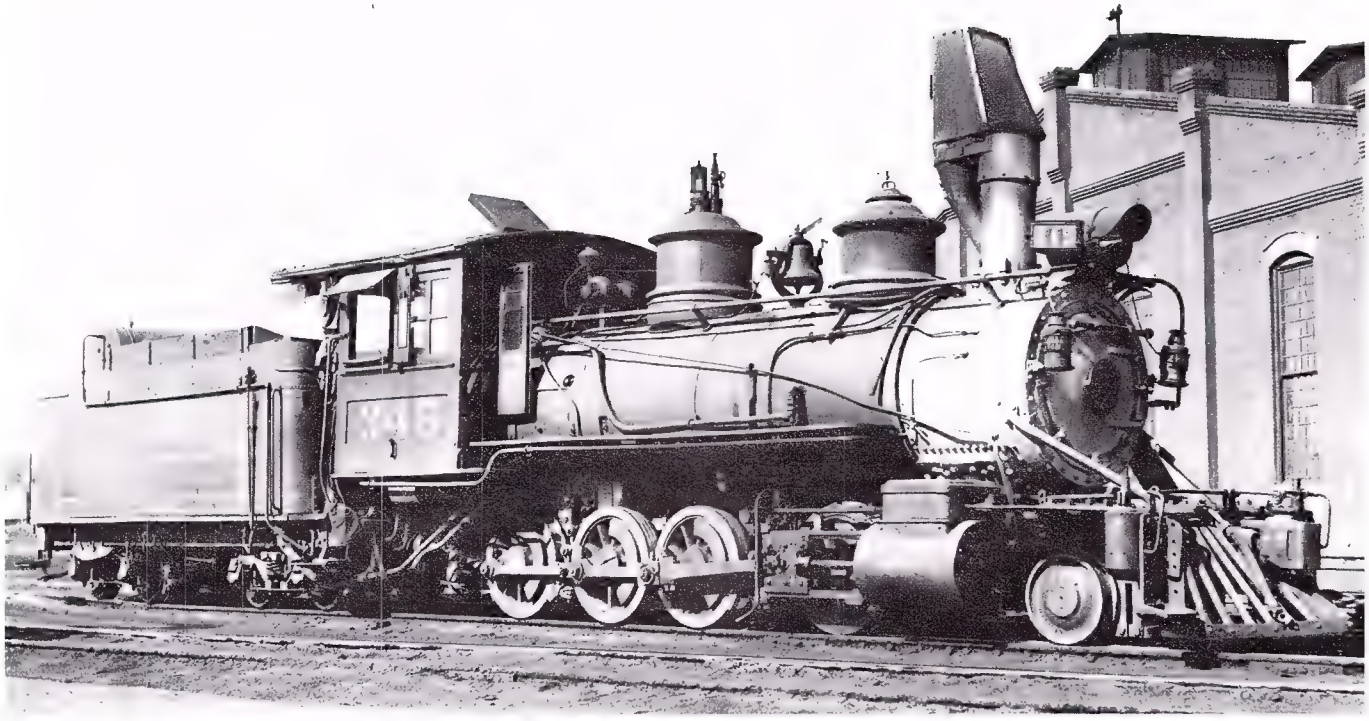
D&RGW #346 on the C&S at Denver, Colorado in 1936. ***Photo by G. M. Best.***



D&RGW #345 C-19 2-8-0 on the C&S at Denver, Colorado in 1937. She is ready for helper service out of Denver over the Kenosha Pass. *Photo by R. B. Jackson.*

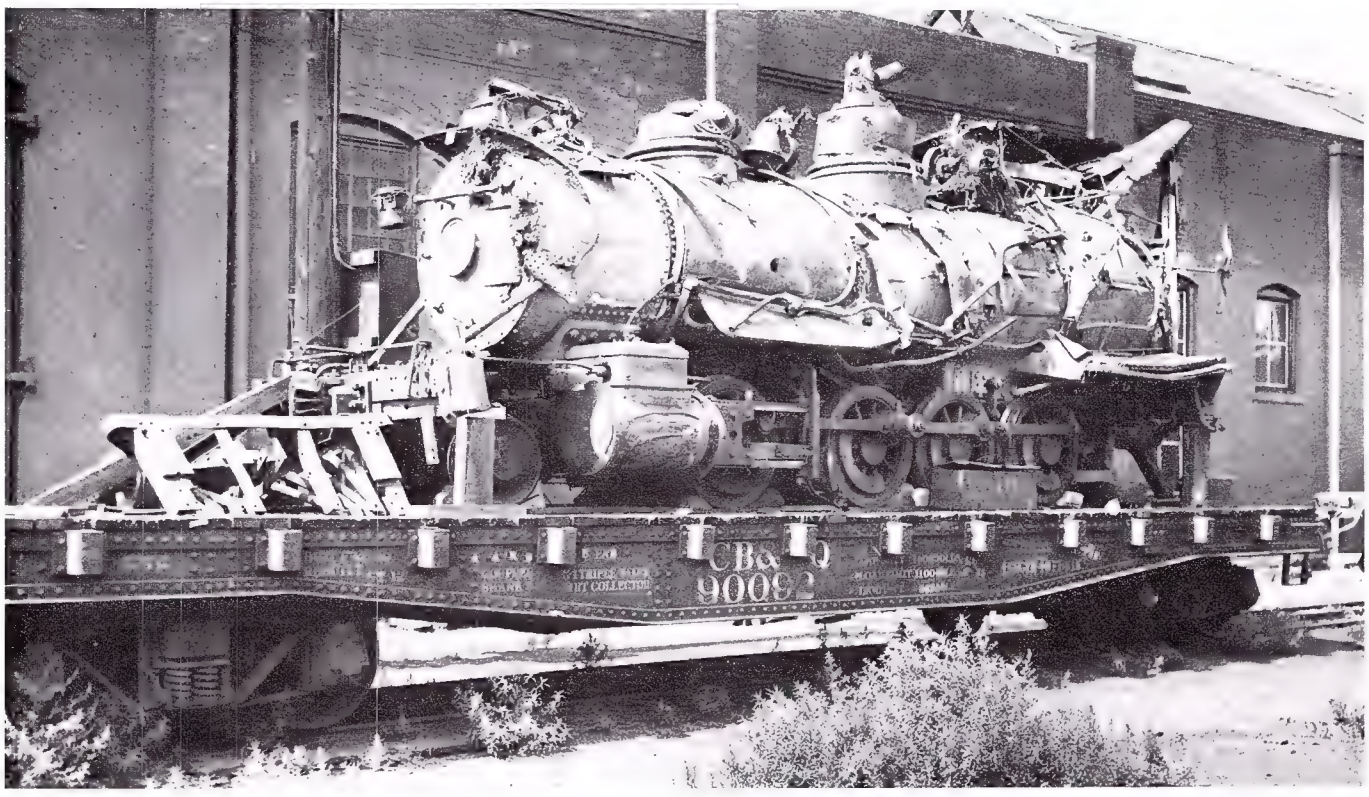
Drawing courtesy John W. Maxwell


C. & S. R.R. DENVER 7-26-18 4802
SPARK ARRESTER
N. G. Engines
H. W. RIDGWAY
THIS DEVICE PATENTED
AUGUST 16, 1921
Sheet iron filling pieces with turn down flanges
Scale 3/4" = 1'
#16 B.W.G.
3/16" bolts & 1/4" rivets except where otherwise noted
Outer netting 2 1/2 x 2 1/2 mesh
Perforated plate (1/4" x 1/4")
Not used in 1930's, apparently
1"x1"x1/4" angle
#16 B.W.G.
Valve
For lower end of spark arrester pipe
Attach chain & pin
Attach chain & pin here
#20 B.W.G.
#16 B.W.G.
1 1/2" I.D.
8 1/2" Dia.
5/8" set screw
50 1/4" To Top of Stack from front of cyl. L.H. side only
Original dwg courtsey Geo. Lundberg
Redrawn B. G. W. RY.
BALSAM SHOPS
Wheat Ridge, Colo. Aug 10, 1954
№ C-11



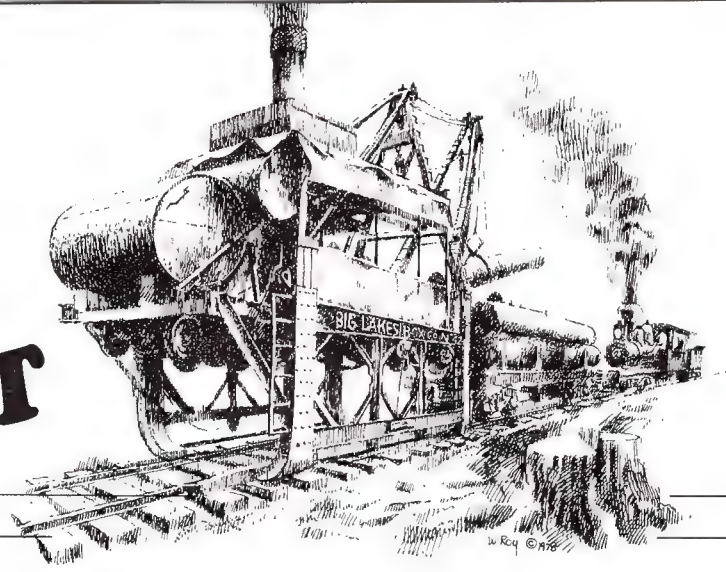
D&RGW #345 C-19 2-8-0 on the C&S at Denver, Colorado in 1936. ***Photo by G. M. Best***

D&RGW #346 C-19 2-8-0 on the C&S at Denver, Colorado at the C&S shop in 1936. She was wrecked by the C&S on Kenosha Pass at mile-post 75 on July 25, 1936. ***Photo by R. B. Jackson***



McGIFFERT LOG LOADER

by Bill Roy



As railroads became available to the lumber industry in the 1890's it soon became apparent to lumbermen that the railroad was a cheap, fast, and efficient way to get their logs to the mill. Rivers and flumes are undependable and often dangerous. Horses and oxen need care, harness, and skilled drivers. They also have limited distances over which they can haul heavy loads. Railroads on the other hand are dependable, and spurs of track are easily laid into the woods. Large loads can be transported great distances in short periods of time. The only problem was finding a way to get logs onto cars easily and quickly; the McGiffert log loader was the answer.

In 1901 the self-taught inventor and engineer, John R. McGiffert gave up his first profession, a law practice, and invented this answer to the lumbermen's needs. He took out a patent on the McGiffert log loader and became a partner in the Clyde Iron Works of Duluth Minnesota in order to develop his machine. His machine caught on and nearly a thousand were built between 1902 and the 1930's. Some continued in use until the 1960's. The original design was so successful that it underwent very few modifications during these production years.

The prudent and shrewd loggers found that McGiffert's loader made great economic sense as it reduced their 'per thousand-board-feet' costs in a highly competitive business. It caught on first in the upper midwest and then in the south and western parts of the United States. The chief virtue of the 'jammer' as it was often called was the speed with which it could load cars on the same track on which it stood. It could load standard flatcars or special log cars with equal facility. McGiffert's loader was also sturdy and required little maintenance. Best of all it could lower its retractable trucks to the track and move itself off to a new logging site. Along the way it could act as its own switcher pulling or pushing loaded cars or empty flats.

The operator of the machine perched on a second story platform, laden with a steam boiler, a two or three drum winch, a fuel supply, and an "A" frame boom. The fuel supply was in the rear and the "A" frame used to load the logs was in front. The most ingenious part was the system of retractable, chain-driven trucks that when raised from the rails allowed the four sturdy bow legs with their large feet to rest on the edge of the ties. The width between these legs was sufficient for empties to enter the machine. They were drawn forward with cables from behind and loaded in front under the boom. When it was time to move it took the operator only 30 seconds to lower the wheels to the rails, cinch the truck frames tight against their spring blocks, and get under way to the next loading site. For short distances the McGiffert usually moved on its own power from deck to deck, loading cars and spotting them where a locomotive could pick them up. For long distance travel between sites it was usually pulled by a locomotive.

The first of these log loaders burned wood, later some of these were converted to oil. At least one in Michigan was coal-fired. A typical crew consisted of six men: two hookers, a top-loader, an engineer, a fireman, and a toggler-knocker. This combination of men and fuel cost about $16.00 for ten hours of operation back in the days when the loader was most popular. In a ten hour day 60 to 100 thousand board feet of logs could be loaded; owners commonly boasted of such feats. The record goes to "Cruel Jimmy" Johnson, who loaded 1,070 logs containing 1,087,000 board feet of lumber in one day with a single log loader and the usual crew. This feat took place near the northeast corner of present-day Crater Lake National Park in Oregon.

Soon, loggers were using the McGiffert as a skidder, and dragging cut logs to the rails from as far away as 1500 feet. Usually a horse was used to take the line back into the woods for another log; sometimes a haulback line was used. It wasn't long before a larger McGiffert, longer in frame was developed as a combination "loader-skidder". Two four-wheel trucks were used to carry the weight of this heavier machine. Drum capacity was increased and the swing boom on these machines had 15 degrees of movement. This greater clearance from side to side reduced damage to the log cars from swinging logs and thus won favor with the operators. The loader-skidder version found special favor with the pine loggers of the Pacific Northwest.

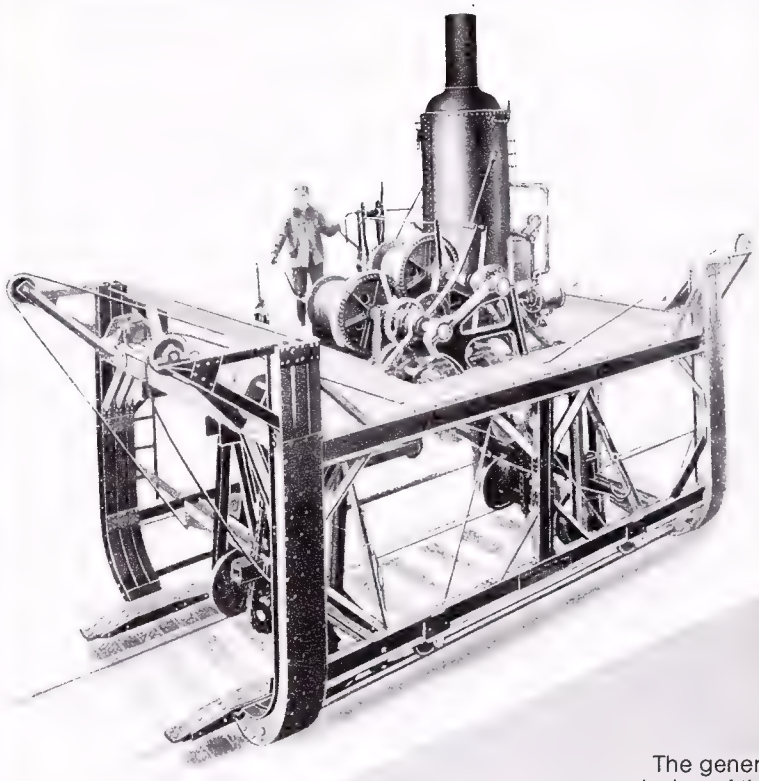
The McGiffert was possibly the most versatile steam driven machine ever devised. The F. Kiech Manufacturing Company of Nettleton, Arkansas, operated their loader on a mainline railroad, shuttling it into position in the intervals between four passenger trains and two freight trains daily. The Anchor Sawmill Company of Ellisville, Mississippi, pressed their 1907 version loader into service as a wrecker, lifting derailed trains back on the tracks. Many other lumber companies did the same. In spite of its top-heavy appearance, the McGiffert had superior tracking abilities which allowed it to be used on trackage too poor for many locomotives. It also had excellent climbing abilities on 10 and 12 percent grades. It also showed other unexpected talents when the Medford Logging Company of Oregon used their machine to lower bents into place for trestle construction.

There *were* narrow gauge McGifferts. Michigan-California Lumber Company of Camino, California ordered one that was never delivered. However, numerous companies did operate McGifferts on three-foot trackage. Feather River Lumber Company of Portola, California, and Madera Sugar Pine Lumber are two examples. There is a photo of the Feather River operation in Cramer Adams' *Logging Railroads of the West* (Superior Publishing Co., Seattle, 1961).

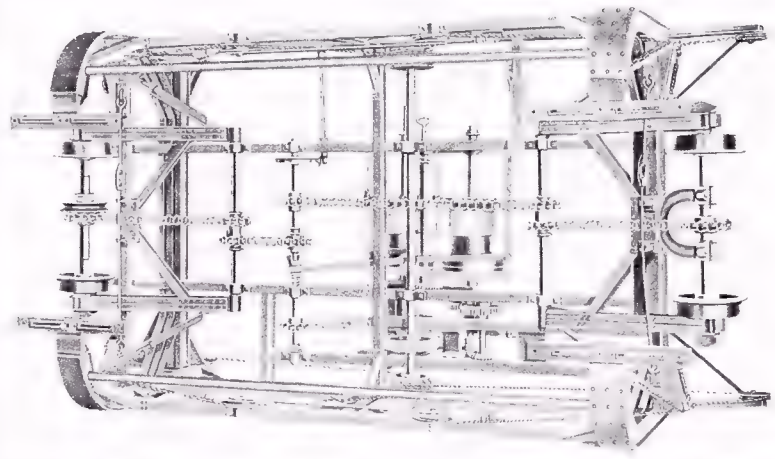
Once a company had one of McGiffert's machines, it was apt to acquire others if the

work load required it. Edward Hines Lumber Company with headquarters in Duluth had four standard gauge loaders. The biggest operator of McGiffert machines was probably the Southern Brazil Lumber and Colonization Company, Tres Barras, Brazil. They had a massive operation with seven machines all running on meter gauge. They had five loader-skidders, one Clyde 2 line skidder and one four line skidder. They also had ground skidders from Willamette, Clyde, and Lidgerwood and an impressive array of locomotives: two Baldwins and a 70 ton shay. Sounds like a really successful operation!

The McGiffert in position on the ties and ready for loading. Note how the feet are down and the wheels have been retracted. ***Clyde Iron Works 1907 catalog, author's collection.***

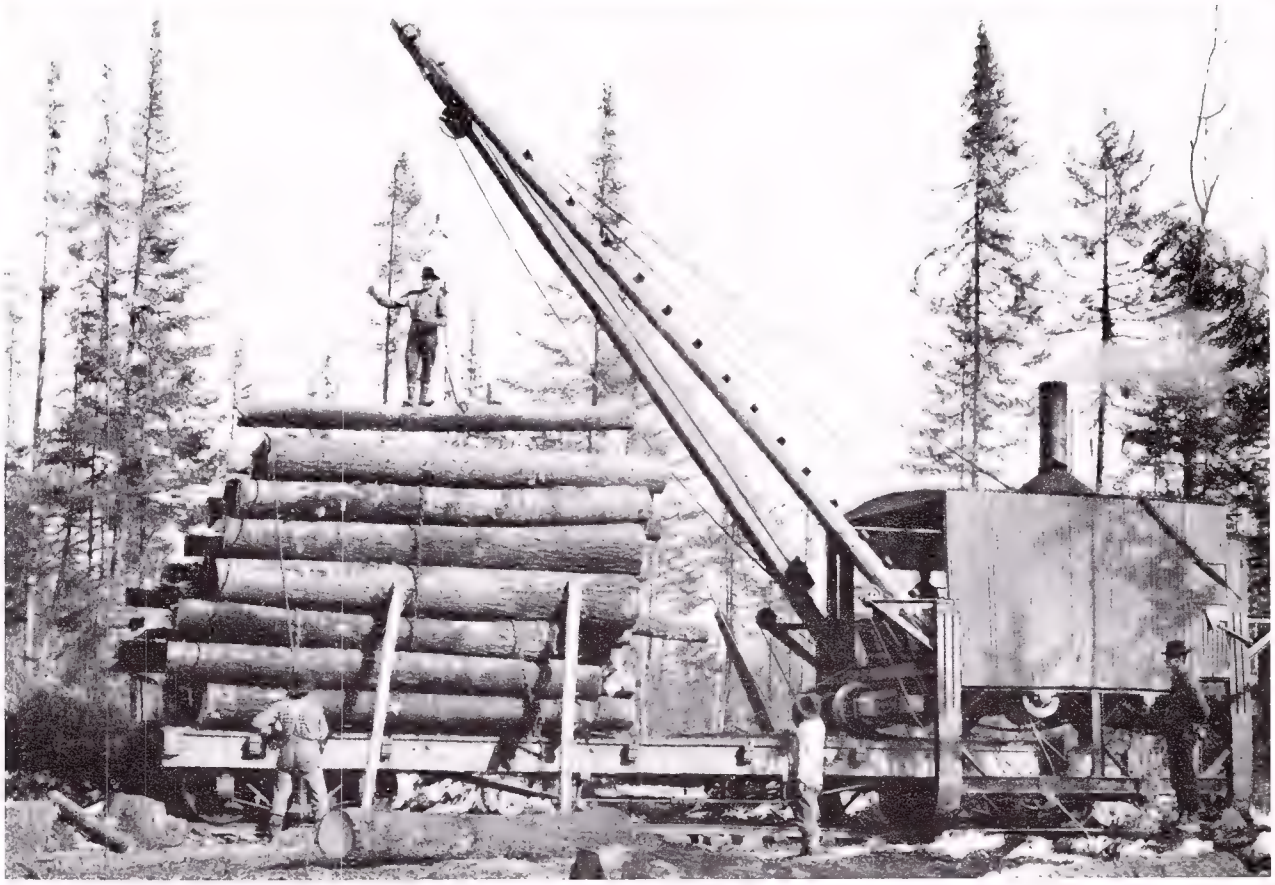


The general design of the McGiffert loader showing the location of the boiler, and engine. The cab, water tank and boom are missing. Notice the large feet for holding the loader up when the wheels have been retracted. ***Clyde Iron Works 1907 catalog, Author's collection.***



A worms eye view of the McGiffert frame with the wheels extended. ***Clyde Iron Works 1907 catalog, author's collection.***

Although McGiffert developed his machine for the American logging market, originally, loggers in other countries were quick to see its advantages. Besides the operation just described in Brazil, McGifferts are known to have been used in Canada and Mexico. El Oro Mining and Railroad Company, Ltd. of Estado de Mexico used McGifferts. John McGiffert went to India to explore the market potential there. However, McGifferts were never used in India because it soon became apparent that even they could not compete with the low cost of elephant power.



This McGiffert is shown loading a 40 foot flatcar. Notice how the flat car is partially under the loader and that the loader's wheels are retracted to clear the car. *Photo from 1907 Clyde Iron Works catalog from author's collection.*

Most of the McGifferts retained their basic configurations throughout their working lives. Some were used as late as the early 1960's. In fact Weyerhauser used construction #1281 into 1961 and Long Bell's #1262 into 1962. There were a few attempts to use McGifferts in the post-steam era and some were adapted to gasoline engines or electric motors. Brooks-Scanlon of Bend, Oregon made an unique user adaptation of their machine. There were even a few McGifferts built on the west coast under license by Willamette. In a following article I'll describe the various models of steam-operated machines and assorted modifications.

Apparently only three of these remarkable machines which played such a vital part in the logging industry have survived.

Number 678, a 1909 wooden boomed model with four wheels is on display at Collier State Park in south-central Oregon. It was originally bought by McCloud and retired by Weyerhauser.

Number 1281, the large "Western" model loader-skidder which was used by Weyerhauser until 1961 is also on display at Collier State Park in Oregon.

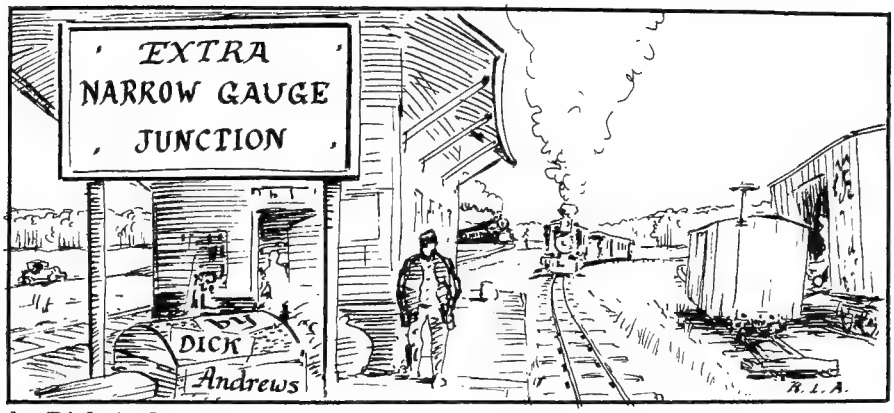
Number 1261 is back "home" in Duluth at the Lake Superior Museum of Transportation. It is also a "Western" model. It originally belonged to Long Bell Paper Company of Weed, California. Long Bell donated it to the museum and it was transported home on two flatcars by the Burlington Northern. The Hallett Dock Company under direction of R.N. "Turk" McGiffert (son of John) restored it and converted it to operation on compressed air.

A fourth, #1276, pictured on page 17 of the May/June 1979 **GAZETTE** was scrapped unceremoniously in the summer of 1978.

I am interested in continuing my research on the McGifferts and would like to hear from anyone who has photos of McGifferts or other Clyde products. I am especially interested in eastern logging operations and those in the south and Texas. Construction numbers, users, dates and any other information will be most appreciated. I currently have plan sets available for McGiffert #678 and 1281. Write to me at 666A Carolina Street, San Francisco, CA 94107.

Valuable information for this article was provided by R.N. "Turk" McGiffert, Ken Schmelzer, John T. Labbe, Lynette Read, **TIMBERMAN MAGAZINE**, *and Cap Collier of Klamath Falls, Oregon as well as Collier State Park, where a great deal of logging material has been preserved. My thanks to all of these.*

Photo opposite: Here is a McGiffert being used to build a trestle on the MEDCO Oregon operation. *Photo collection of Lynette Read.*



by Dick Andrews

If only we had unlimited space for a narrow gauge layout! Then all problems would be solved and we would have the "ultimate" in operation. Right? I wonder.

Many years ago I joined a long established model club with a huge layout in a large room. It was a nice and affable group and I enjoyed the many hours spent there. But it soon became evident that the old hands were not particularly interested in the layout at large (which was pretty much a conventional plan for divisional railroading). They were in the yard, switching. Trains would be made up and go out and "swim" around the big room for a time, and then would come back into the yard to be broken up. There simply wasn't much of any interest in the trains as they rolled about. I once suggested a peddlar freight to liven the main line action, but it was explained to me that there were really not many convenient spots for on-line industries and anyhow, a hard-to-reach turnout could make problems.

At that time — over thirty years ago —I obtained "rights" to a cellar bay under the apartment we then were in, to build a little layout in "On2". In those days there were perhaps two or three narrow gauge layouts of any description in the land. I had one locomotive, one cabin car, and about two or three each of box cars and flats. (That was when you made your own completely except for wheels.) I pondered the problem and asked some of the other fellows interested in narrow gauge, who were all veteran standard gauge modelers. I thought, "Suppose I don't make a layout with a loop plan?" The narrow gauge prototypes I knew were unlike standard divisions; traffic did not start from one yard and end up in another and very similar yard. On a narrow gauge such as I'd seen, there was a junction with the broad gauge that functioned very differently from the home yard at the far end.

One of the fellows said, "If you don't have a loop, what are you going to do with the trains you are running when you are switching in the yard?" Well, the answer to that for me was that I only had one locomotive anyhow. The little layout I came up with proved to be great fun — once I hit on the right approach. It was not a loop, nor did I ever want it to be one.

The layout I have sketched here is not quite the plan I had then, nor is it necessarily just what I am developing now. But it is the general notion as set in a 9 foot by 12 foot room. I have named this mythical pike the WHIFFLETREE & KINKY CREEK RAILWAY, and it exists in Maine or some other rural area to serve the residents of Whiffletree and the general Kinky Creek valley. Right away one can see that as a plan, this layout has the complexity of a test track along a shelf. It runs along a wall on a shelf until it meets a corner and then turns. Thus as a scheme it is utterly simple. The interest is in how you use it. The W&KC is a public carrier and runs scheduled trains, so it has a time table.

Now, how to make this very simple little layout become a railroad eighteen miles long, as the timetable says it is. First, each five minute interval on your watch or clock becomes a "scale" hour. So we have an "hour" to cover the line one way. Since 18 miles per hour was a very typical average speed over the road on a two-footer (or similar light road), there is the indication of 18 scale miles.

Train #1, mixed, is ready to leave Whiffletree at 7:02. Coupled on behind the combine are two low sides. A standard gauge carload of coal has arrived at the junction and will take two or three narrow gauge cars to bring it up to Slack Brothers, the fuel dealer at Whiffletree. We're off! This is a scheduled run. Pretty quickly we are at the switch for the spur into North Whiffletree. The boys cut off the two lowsides because this is a bit of a climb. Pretty quickly we curve around the edge of the lake and back into the old covered style station. A car of standard gauge ties just beyond the station wants to go, so we pick that up. The head end work is done and off we go. Picking up the lowsides, we are quickly at Yancy's Road. Just beyond, Jeffries' Golf Tee Factory has a car to go and we add that to the string. Wow! Time's pressing! And we haven't been up to Slab City yet and that is a slow walk up 5 and 6 percent! We drop the freight cars at Slab City switch and storm up there. This lumber camp (hence the name) has a car of logs for Jeffries but that will have to wait. Back to the switch, and now brother! Hold your hat! We are really short on time and if one connection *must* be made, it is the one with the broad gauge. So we really pour down the 5 percent and into the junction. Whew! made it! (If we miss that one, the stage company will get the valuable mail contract away from the W&KC.)

Now we switch the junction yard. Two box cars are loaded with feed for the mill at North Whiffletree. At 9:20 AM as Mixed #2, we head out up the hill. A passenger flags us at Portland Road crossing and we don't get a good run at the grade. Soon we drag to a stop and cut off one of the cars, taking the other up to Slab City switch. Back for the other car and finally we have our train together again at the switch. The schedule gives us extra time for this heavy grade but we are getting behind time. The logs for Jeffries' Mill will come along but we'll take them on to Whiffletree and leave them off in the afternoon on Train #3. . . . .

To return to our senior members in the big club layout bending happily over their yard and ignoring the vast layout behind them, we can now see what the short line pike of ultra-simple plan with a mixed train and a time card does — it makes the whole railroad a snappy carded run. And

WIFFLETREE & KINKY CREEK RAILWAY CO.

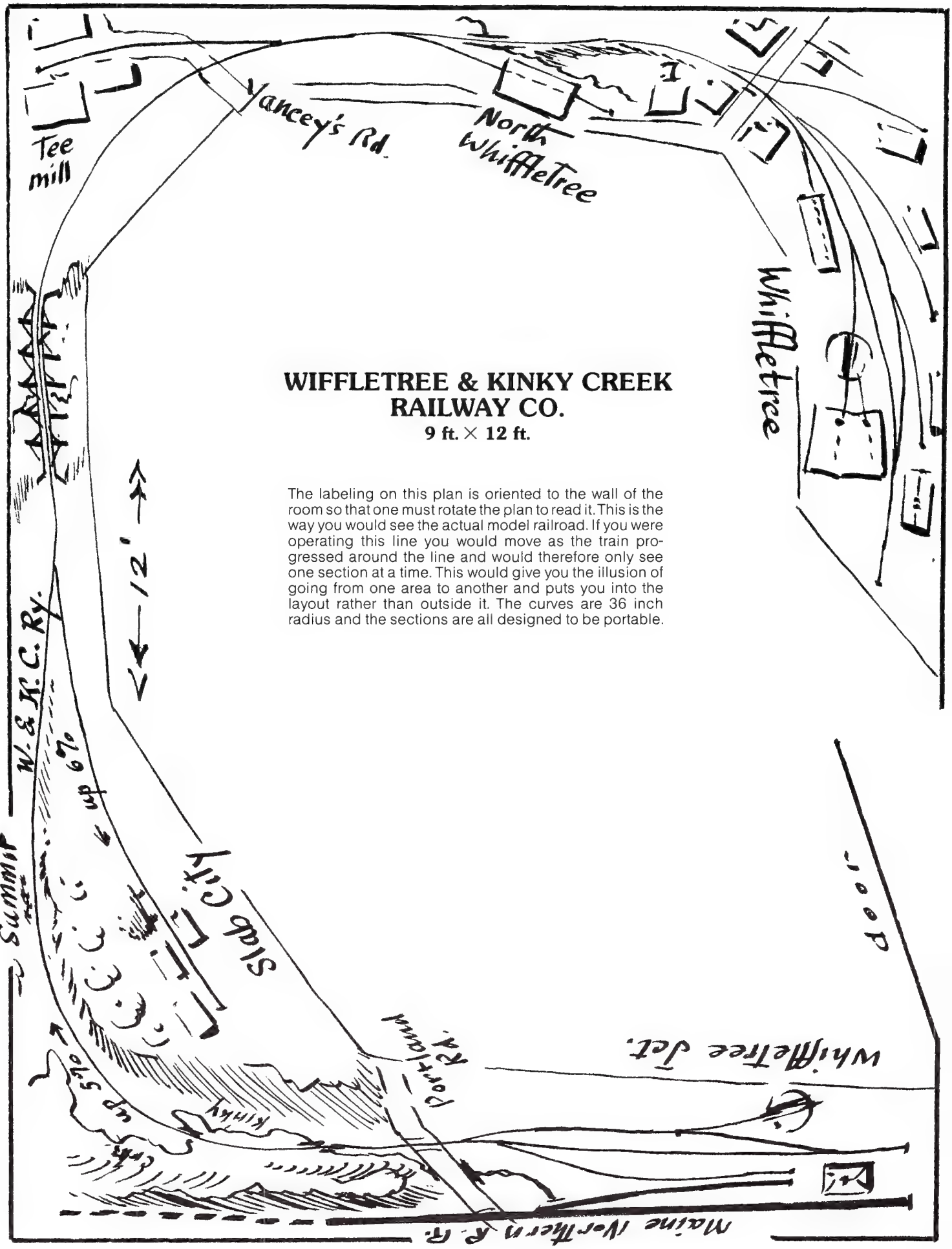
Arrangement of Train Service

In Effect Sept. 15th, 1979

Mixed #1 A.M.	Mixed #3 P.M.	Mi.	Station	Mixed #2 A.M.	Mixed #4 P.M.
7:02	2:32	0	Lv. WHIFFLETREE Ar.	11:08	7:02
7:10	2:40	2.1	No. Whiffletree	10:58	6:48
7:14	2:44	3.4	Yancey's Rd. f.	10:42	6:32
7:21	2:51	4.9	Slab Cy. Sw. f.	10:35	6:25
7:30	3:01	6.8	SLAB CITY	10:12	6:02
7:50	3:20	14.3	Summit f.	9:50	5:40
8:05	3:35	17.8	Portland Rd. f.	9:24	5:14
8:07	3:37	18	Ar. WHIFFLETREE JCT. Lv.	9:20	5:10

f. — stops on signal to pick up or discharge passengers

Connects at Whiffletree Jct. with Maine Northern RR



WIFFLETREE & KINKY CREEK RAILWAY CO.

9 ft. × 12 ft.

The labeling on this plan is oriented to the wall of the room so that one must rotate the plan to read it. This is the way you would see the actual model railroad. If you were operating this line you would move as the train progressed around the line and would therefore only see one section at a time. This would give you the illusion of going from one area to another and puts you into the layout rather than outside it. The curves are 36 inch radius and the sections are all designed to be portable.

at the same time it's one big switching yard! And did we engage in a bit of play with the Einstein theory of relative time and space coordinates, bending around a small room? Perhaps. Anyhow, it works.

■ ■ ■

I just finished rereading Bob Jones' new book, *"Two Feet Between the Rails"* (Sundance, 1979). Now frankly, why another book on the Sandy River? Well, Bob's book is not just another book. Indeed *all* of the books so far done on the Sandy River and the other two-footers have been fascinating, Bob, however, gives us something unique.

He has somehow managed to come to know the people and places along the two foot roads of Franklin County — and to know them very well indeed. Not only in the 1930's, — but right back to 1879. The story moves with an incredible wealth of detail: people, personalities, happenings, little dramas, accidents, and all. He never anticipates nor gets ahead of himself. So you find out what is going on, just as the Franklin County folks did during those years. There is rumor that a Boston outfit may extend the Sandy River line over Redington Mt. to Rangeley. An excursion takes folks from Phillips and Strong to a circus at Farmington. A skinny dipper at Phillips catches a runaway horse and then suddenly remembers his "situation". It is as if one were leaning over a back fence at Phillips or Strong to hear the latest, day by day. As one reads along, one is living in the Sandy River valley through those years.

This is a job of tremendous detailed research from many sources. But the labour doesn't show. There are many excellent photos in the book, and these are often old and rare and keyed to the time covered in the writing. We go on the opening day excursion of the Kingfield & Dead River to Carrabasset station; and we get a couple of good views of that station, still unpainted. It is one of the old covered types and a delight for modelers. (With the passenger cars inside the station and the engine just sticking its face out the far door, you can't tell that the little people are not getting on and off.)

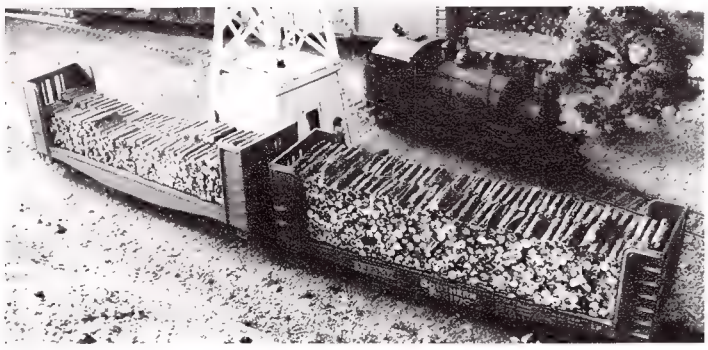
Gradually as you read this book, you will see a country narrow gauge living and breathing and will know what trains it ran... passenger runs, name trains, mixed trains, freight extras, excursion extras, emergency runs with doctor or fire help, and so on. Important to know for the realistic operation of a model railroad, which is quite another matter than the operation of realistic models.

If I may pick a tiny bone, no old timers who worked for a long-gone narrow gauge are going to tell a research interviewer how really interesting it is to run a mixed train that is hauling mail, express, passengers, and parcels – and also picking up and setting out odd carloads of local freight along the way. They will much prefer to recall the prestige of hauling sports and swells to fancy hotels or camps in all-varnish trains complete with parlor cars. The mixed train is an off-season or hard-time economy compared to that elegance. However if you ride a railroad, no straight varnish or straight freight haul is as much fun by half as a train that is both. So I found it on the snappy little East Tennessee & Western North Carolina RR. If you operate a model pike by a time card, just try a mixed train. If you have time to keep and way switching to do, you'll be busy!

Another small point is this: old timers interviewed after the fact enjoy yarning about ballast-scorching runs. One rather gets the impression that these mini-trains roared through the woods at twice the speed of wide gauge trains. Don't you believe it. Yes, they did on occasion touch sixty but far more often they were hard put to it to touch six. On any stiff grade they dropped to a slow walk. My first memory of a narrow gauge train is walking along beside it, on the old Bridgton & Saco River RR — as the locomotive chuffed on the long winding 3 percent pull up out of the Saco River valley. You'd better be back aboard as you crested the summit or you'd get left. On the Linville River RR, three miles of 6 percent was carded at forty-five minutes, and they used it.

Small beans. We are extraordinarily fortunate to have a book which opens such marvelous picture windows on the long past. A last note: box cars on the narrow gauge roads were often painted any color but red. Battleship gray was common on the Maine roads — but I'd not known till now of the *white* box cars of the little Franklin & Megantic Ry.

Dick



McLeod Rail Miniatures

BOX 5903 Orange, Calif. 92667

AN IMPORTANT ELEMENT

in any timber operation is the efficient movement of pulpwood to paper mills.

Our one-piece polymer castings readily accept Floquil stains and paints, and are designed to fit your Athearn pulpwood cars. $1.85 ea.

105 - Pupwood Load - full load
109 - Pulpwood Load - partial load

See your Hobby Shop first!

Mr. Dealer: Ask your distributors!

PAINTING TWO-FOOT GAUGE CARS

by Peter Barney

If you model the Maine two-foot lines you may have had a problem deciding on what colors to paint your cars. The Maine two-foot railroads disappeared before active modelers were interested in what color the cars were. The purpose of this article is to present correct color schemes and recommend available model railroad paint equivalents.

These recommendations are certainly not the last word on Maine two-foot car colors, but are based on currently available sources. There is always the possibility that new information on the prototypes will surface.

Unfortunately, by the 1930's when many railfans took an active interest in these railroads, the equipment had already weathered severely and the colors faded.

The most common color, Box Car Red (similar to Floquil), when aged outdoors fades to a reddish pink. A Grimy Black color for the trucks and underbody is suitable. A list follows of information I have been able to gather on Maine two-foot car colors.

Kennebec Central RR

Box Cars: Originally grey with black lettering; later, the lettering was changed to white. It has been reported that the cars were green with gold lettering in 1929 in the Randolph yard.

Flat Cars: Box Car Red sides, natural wood decking.

Lowside Gons: Box Car Red.

Passenger Cars: Brunswick Green.

Note: By 1916 according to an ICC report, lettering on all cars except the box cars was unreadable.

A string of Kennebec Central coal cars at Randolph, Maine. *Photo, collection of Robert Brown.*

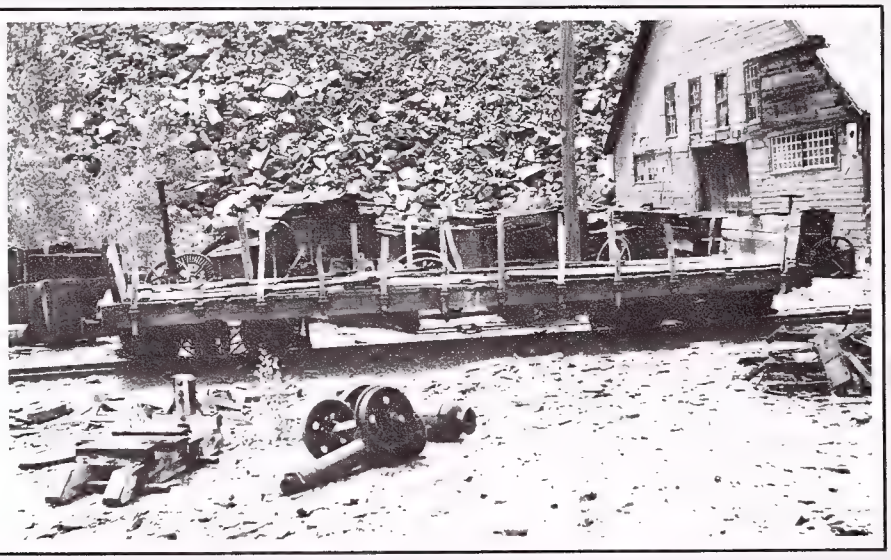
Monson RR

Box Cars: Originally grey, then repainted Box Car Red. White numbers on the red cars.

Flat Cars: Box Car Red. White numbers on car sides and ends. The numbers were repeated on cars which had end boards.

Plow: Box Car Red.

Combine: In the 1930's this car was orange with a red roof. Early photographs tend to show this car as quite dark, and there is some evidence that it was painted the standard dark green at that time.



One very used and dirty Monson flat car at the slate mill. *Photo by Vince Ryan.*

Wiscasset, Waterville, and Farmington RR (Wiscasset and Quebec)

Box Cars: All Box Car Red with white lettering. Early they were marked W&Q, later WW&F RR. In the last years they had only white numerals on their sides and ends.

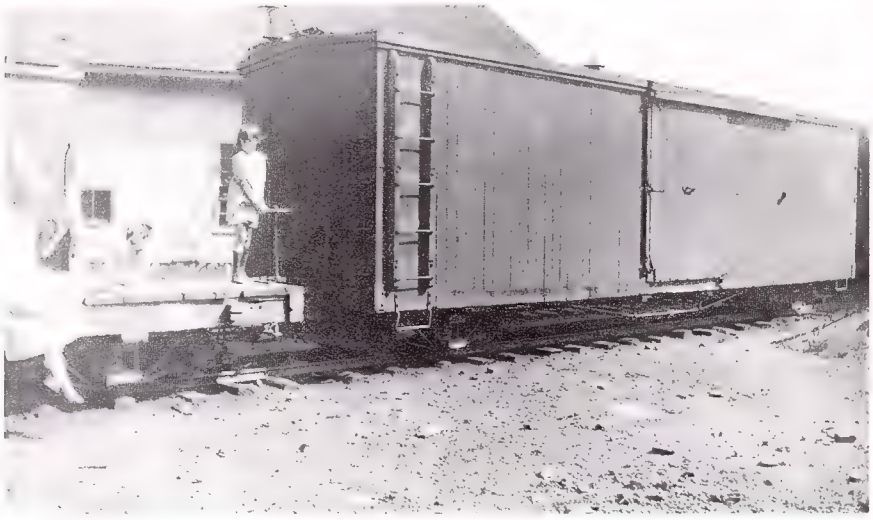
Flat Cars: Box Car Red. Natural wood decking. When these were delivered many had WW&F on their sides, later they had only white numerals.

Refrigerator: TURNER'S CENTRE DAIRY ASS'N. Reported as having yellow sides with green roof and ends. The only photos the author has seen show a Box Car Red car with white lettering.

Work Equipment: Box Car Red.

Cabooses: Box Car Red.

Passenger Equipment: Very dark green. In the late 1920's and early 1930's these were repainted Box Car Red.



A family scene on the Wiscasset Waterville and Farmington RR. ***Photo, collection of Robert Brown.***

Bridgton & Harrison RR (Bridgton & Saco River)

Box Cars: Orginally grey, this color continued until at least 1907, with black numerals. These were later repainted Box Car Red with white lettering.

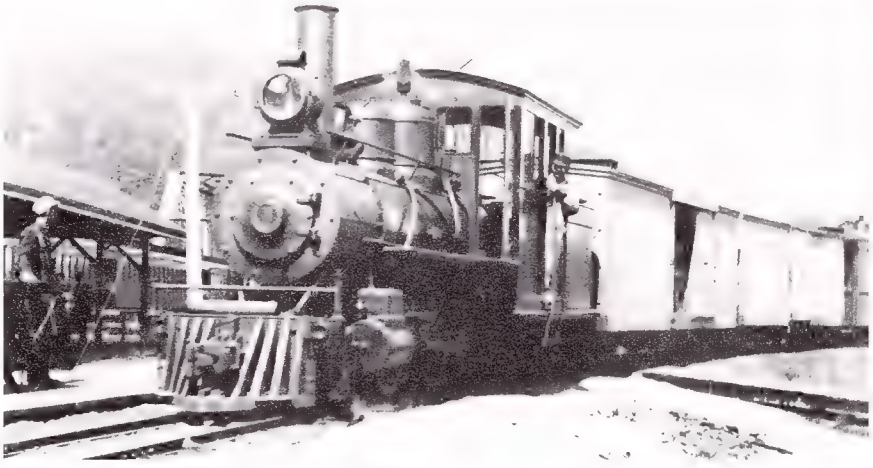
Flat Cars: Box Car Red. Natural wood decking.

Tank Cars: The Flat car was Box Car Red with natural wood decking.
Tank: At first painted black with white lettering, and white ends with black lettering. Later tanks were off-white to grey with black lettering. By the end of the railroad the tanks had no lettering.

Work Equipment: Box Car Red.

Caboose: Dark Red (nearly a Tuscan) much like SR&RL cars.

Passenger Equipment: Brunswick Green. These cars faded to a lighter shade with time.



Bridgton and Harrison #5 pulls into Bridgton Junction station about 1908. Notice the grey color of the box cars behind the locomotive and the black lettering. ***Photo, courtesy Walker Transportation Collection.***

Billerica and Bedford RR

Information is scarce on the painting of these cars, but following the general trends of the period and the colors suggested by the available photographs, I have arrived at the following suggestions:

Box Car A: Light grey body. Lettering, white with black shadow.

Flat Cars: Box Car Red, white letters, natural wood decking.

Excursion Cars: Box Car Red.

Passenger Cars: Yellow.

A very much published photo of an original Bellerica and Bedford platform car. ***Photo, collection of Robert Brown.***

Sandy River & Rangeley Lakes RR
(includes Franklin & Megantic, Philips & Rangeley, etc.)

Box Cars: On the Sandy River these were originally grey, later they were repainted Box Car Red, with white lettering. The other roads used Box Car Red.

Flat Cars: Box Car Red, white lettering, natural wood decking.

Stock Cars: Box Car Red, white lettering.

Work Equipment: Box Car Red, white lettering.

Cabooses: Dark red, close to Tuscan Red, white lettering.

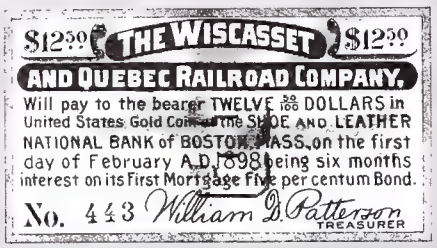
Passenger Cars: Very dark green — Brunswick Green. In photos taken in 1935, some of the cars are white. This was a primer as the cars were being prepared for repainting.

It has been reported that the passenger car roofs at the Edaville RR were originally a red color when the cars were acquired from Maine in the 1940's and 1950's. Zinc Chromate Oxide paint closely resembles this. Since these cars came from several different two-foot roads this roof color may be valid for other roads besides the SR&RL.

A bevy of two-foot cars on the Sandy River Railroad at Farmington, Maine in the 1890's. *Photo, collection of L. B. Walker.*

Weathering

I won't recommend any of the many types of weathering commonly used to achieve that old out-of-doors look of aging rolling stock. Use your favorite method whatever, as long as it works. Do remember the following about cars, cabooses, flangers, or passenger cars equipped with platforms and overhanging end roofs. The *sides* of the car will fade and age, but the protected ends retain their new paint appearance for many years. I have noted this on many of the cars operating at Edaville RR in South Carver, Massachusetts where many of the cars have been repainted in the last few years. Even after only one year in the weather, noticeable differences in color can be seen between the sides and protected ends.


$12.50 THE WISCASSET $12.50
AND QUEBEC RAILROAD COMPANY.
Will pay to the bearer TWELVE 00/100 DOLLARS in
United States Gold Coin at the SHOE AND LEATHER
NATIONAL BANK of BOSTON, MASS. on the first
day of February A.D. 1898 being six months
interest on its First Mortgage Five per centum Bond.
No. 443 William D. Patterson
TREASURER

The Rio Grande Southern Railroad

by

Josie Moore Crum

AVAILABLE NOW

$20.00 Postpaid

REED'S HOBBY SHOP
8039 La Mesa Blvd.
La Mesa, CA 92041
Mon – Fri 3-9 Sat 10-6
Phone (714) 464-1672

Visa
Master Charge

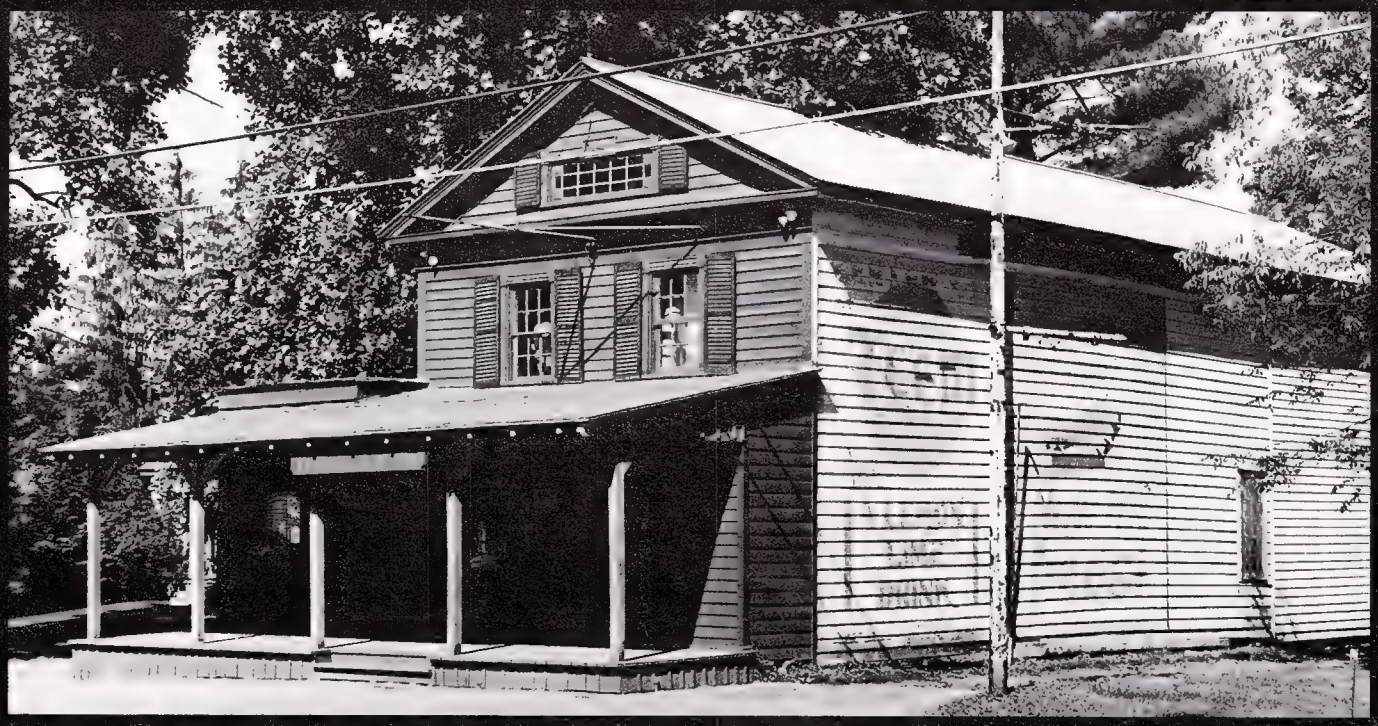
SUPPORT YOUR LOCAL GAZETTE DEALER

GAZETTE GALLERY

Edited by Gene Deimling

We would like to open up the scope of the **GAZETTE** Gallery to include structures, vintage autos and trucks. How about sending in photos of your favorite local structure or vehicle. It would be helpful if you provided some data on the subject such as its age, size, and color. The photographs in this month's Gallery by Chuck Yungkurth of buildings in the Binghamton, New York area are excellent examples of what we are looking for. Five by seven glossy prints are the best but we can work from 3 x 5 prints as well.

Chuck found this colorful store in Nichols, New York. The basic design is very simple yet interesting. As with any structure which has simple lines, the signs and posters add life to the design. The next issue of **GAZETTE** will feature a construction article on another building from this little village in up-state New York. ***Photo by Chuck Yungkurth.***

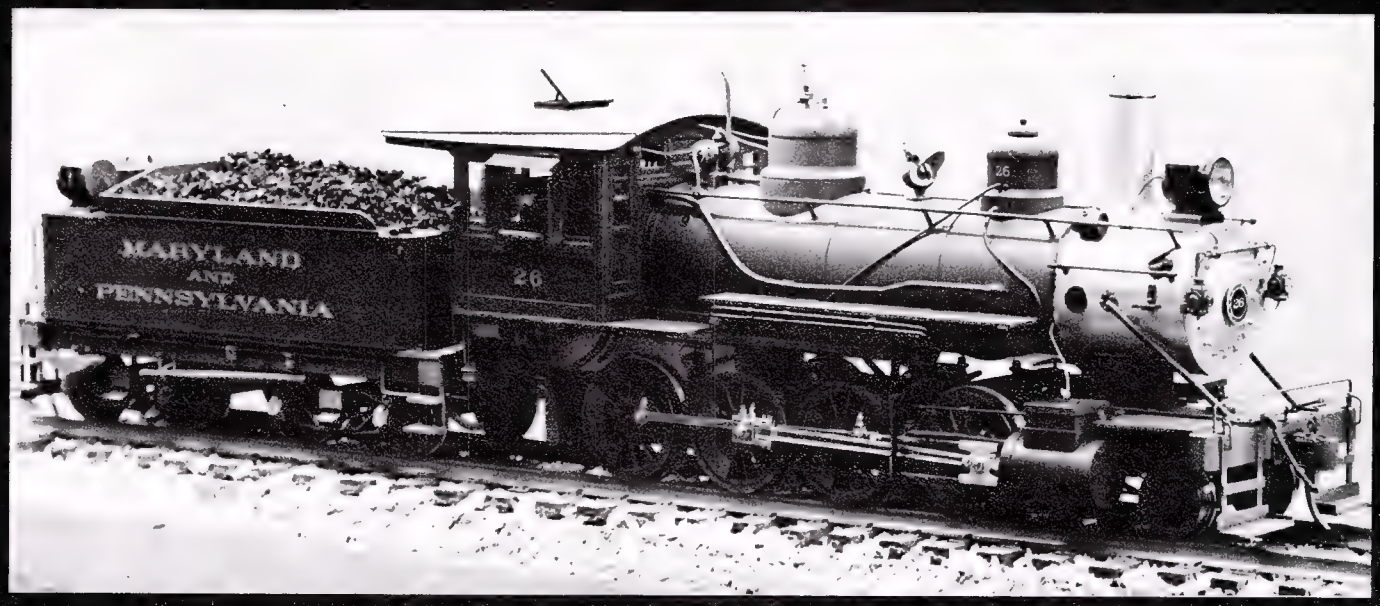


This interesting general store located in Tioga Centre, New York would make a challenging model project. The building appears to have been added onto in the rear judging from the mismatched siding and vertical trim. ***Photo by Chuck Yungkurth.***

David Steer, author of the White Pass article in the September 1978 issue of the **GAZETTE**, submitted these photographs. Number 11 is a "stock" PFM HOn3 import which has been painted and weathered by Dave. He added a Sagami can motor and PFM sound equipment for added operating realism. *Photo by David Steer.*

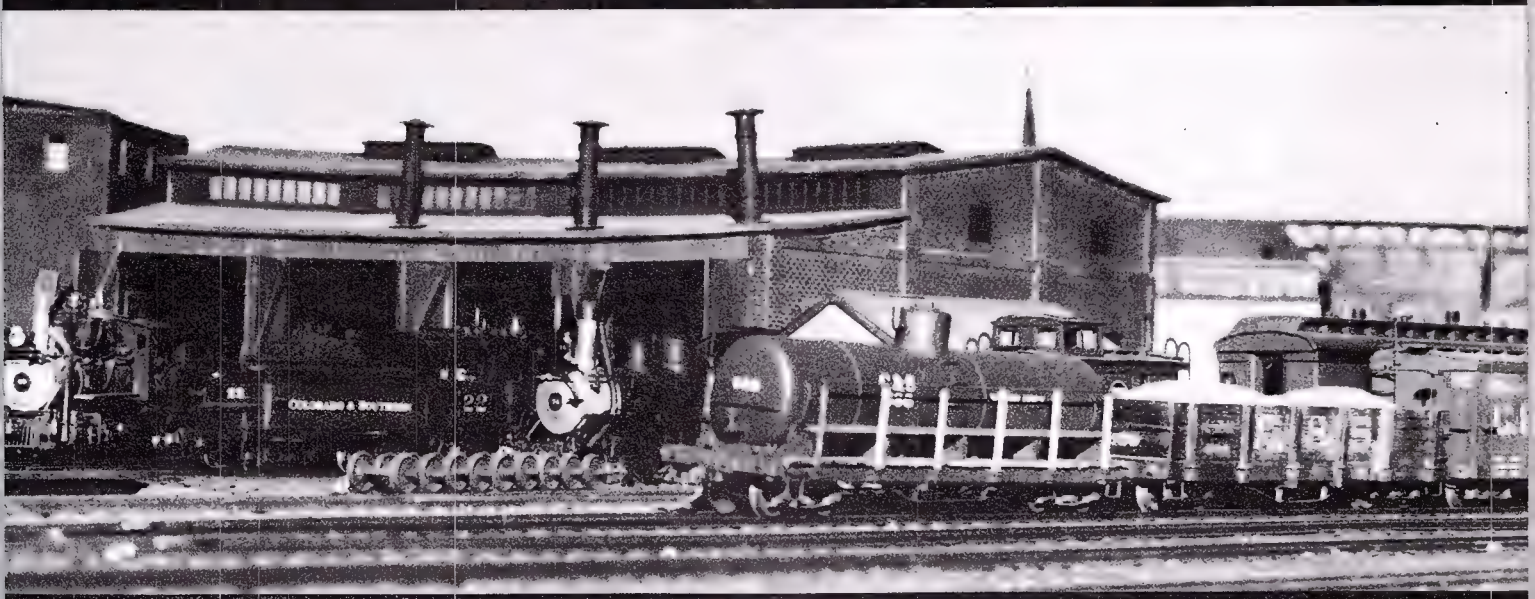
The White Pass & Yukon purchased a number of narrow gauge tank cars which had seen service in Colorado. Dave Steer took a Tomalco HOn3 import and added brake rigging and lettering to create this replica of #62. *Photo by David Steer.*

This White Pass & Yukon box car was scratchbuilt by Dave using Evergreen Scale Models styrene siding over a wood core. Most of the detail parts are from Grandt Line with trucks from Kemtron. *Photo by David Steer.*

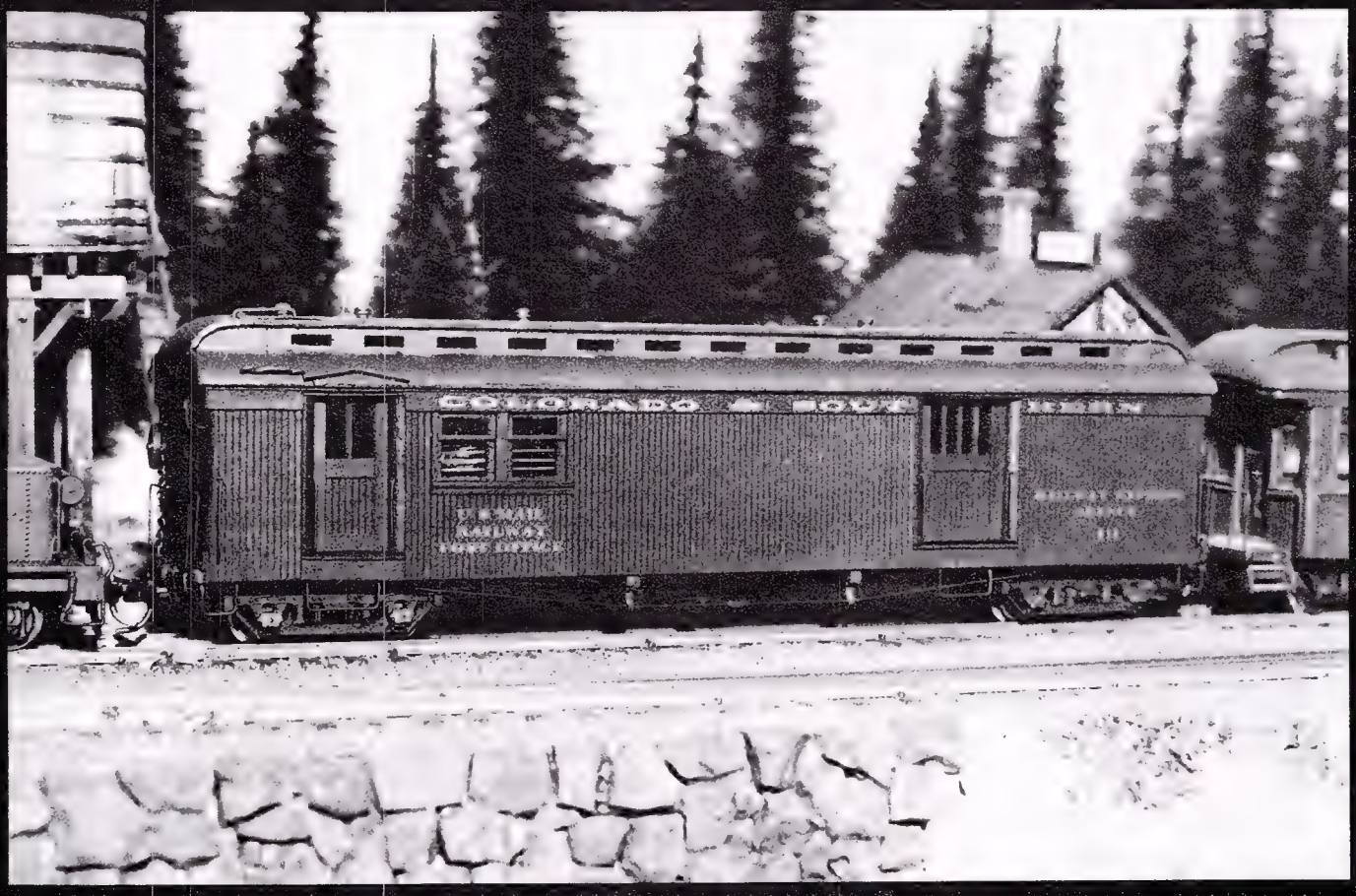


Lawrence T. Baker sent in this view of his recently completed Ma & Pa Consolidation. This O scale model was built from a Precision Scale Model kit. Long a favorite of HO gaugers, this little Baldwin has finally made the scene in O scale. ***Photo by Lawrence T. Baker.***

Denver & Rio Grande C-16 #271 is shown at Pagosa Junction, Colorado in about 1910. The Baldwin 2-8-0 was working for the logging railroad of the Pagosa Lumber Company, known as the Rio Grande, Pagosa & Northern Railroad. The line to Pagosa Springs became a branch of the D&RG and when the trackage was abandoned, Pagosa Junction was renamed Gato, which means "cat" in Spanish. It was on this branch that cupola-combine #215 was operated. This same car (renumbered as 212) operates today on the Silverton run. ***Photograph, collection of Mallory Hope Ferrell.***



Up Reno way, E. Pyzel is re-creating a bit of the Colorado & Southern in HO scale. The engine terminal and yard facility hold an interesting collection of C&S equipment. The brick engine house is a modified Vollmer kit. ***Photo by E. Pyzel.***



The Colorado & Southern operated some interesting passenger equipment on their narrow gauge lines. Baggage/RPO #13 is a prime example. Mr. Pyzel scratch built this highly detailed model. ***Photo by E. Pyzel.***

BROADMOOR HOBBIES

NEVER AN ENERGY SHORTAGE HERE. . . NEVER, NEVER, NEVER!!!

CUSTOM BRASS - O SCALE

Uintah # 50 2-6-6-2T	$ 775.00
Uintah # 51 2-6-6-2T	775.00
D&RGW Flanger "OD"	64.00
SR&RL Baggage-Mail	99.00
SR&RL Combine	99.00
SR&RL Coach	99.00
ALCO S-4 Diesel	450.00
GE 44 Ton Diesel	249.00
J&L Tank Car	RESERVE
GN L-1 2-6-6-2	RESERVE
NP Z-1 2-6-6-2	RESERVE

SUNSET MODELS - O SCALE

EBT # 16 2-8-2	399.00
D&RGW # 268 2-8-0	399.00
USRA Heavy 2-8-2	525.00
AT&SF # 1951 Caboose	89.00

IRON HORSE MODELS - O SCALE

D&RGW K-27 # 456	1295.00
D&RGW K-27 # 461	1095.00
D&RGW K-27 # 460	1495.00
D&RGW K-37 # 491	949.50
D&RGW K-37 # 494	974.50
Ma & Pa 2-8-0	735.00
SP C-6 2-8-0	825.00
NCNG # 5 2-6-0	574.00
Shay 16 Ton	574.00
Climax 42 Ton	696.00

IRON HORSE MODELS - HO SCALE

WP&Y Diesel	175.00
WP&Y Diesel (FP)	199.00

U.S. HOBBIES - O SCALE

SP GS-4 4-8-4	675.00
Pregnant Whale Tankcar	79.00
# 402 Gondola	55.00
# 501 or# 502 Hopper	55.00
# 701 Hopper	65.00

EVERGREEN SCALE MODELS - HO SCALE

Hall's Hardware	$ 22.50
Kohl Iron Works	22.50
Durfy Distributing	16.95
Triangle Bldg.	17.95

ENTIRE LINE OF O and HO STYRENE SHEET AND STRIPS IN STOCK . . .

WESTSIDE MODEL CO. - O SCALE

200 Ton Flatcar	125.00
SP # 217 0-6-OT	399.00
SP S-10 0-6-0	399.00
200 Ton Crane	399.00
B&O Q-4b 2-8-2	549.00
AT&SF "3160" 2-8-2	499.00
SP TW-8 4-8-0	635.00
B&O P-7	495.00
B&O EM-1 2-8-8-4	795.00

WESTSIDE MODEL CO. - HO SCALE

K-27 Modern Slide Valve	140.00
HOn3 Bn-1 Shay	305.00
HO B-1 Shay	305.00
HOn3 Ali-San Shay	219.00
HO Ali-San Shay	219.00
HOn3 20 Ton Class A Shay	225.00
HO 20 Ton Class A Shay	225.00

BOOKS

The Mountains (PFM)	25.00
2 Ft. Between the Rails	33.00
St. Louis Car Co.	16.00
Switzerland Trail of Amererica	33.00
Rip Van Winkle RR's	7.00
RR's of Arizona (Vol. I)	18.00
History of LVRR	16.00

PRECISION SCALE CO. - O SCALE

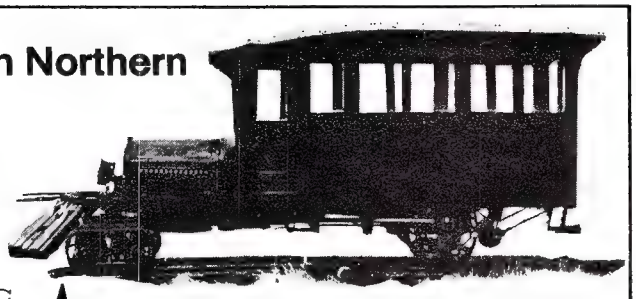
55 Ton Composite Hopper	65.00
55 Ton Offset Hopper	65.00
55 Ton Offset "Peaked" Hopper	65.00
70 Ton Offset Hopper	70.00

FINANCING AND CREDIT TERMS ARE AVAILABLE . . . WHY NOT VISIT US AND SEE WHY WE'RE THE BEST SOURCE IN THE EAST FOR FINE BRASS MODELS AND CRAFTSMAN'S PARTS AND SUPPLIES IN O,S, AND HO SCALES. PATTERN-MAKING, CUSTOMBUILDING, AND CUSTOMPAINTING SERVICES AT YOUR DISPOSAL . . . BECAUSE WE'RE "CRAFTSMEN SERVING CRAFTSMEN."

STORE HOURS: NOON til NINE WEDNESDAY thru SUNDAY.

785 South Church St. Hazleton, PA 18201 Phone (717) 459-0538

On3 Silverton Northern Railbus



ROBERT C. Biersborn LIMITED
P. O. BOX 1365
WAUSAU, WI. 54401

Bob says . . .

At last — a railbus with correct window spacing! Engravings and roof kit.
No. 2000 **$60.00** Postpaid
Wisconsin residents add 4%
Canadian residents add 10% (sorry!)

Due to the fantastic reply to our belt buckle offer we are extending the offer for all kits. Send us proof of purchase, the box label and one dollar for shipping and we will send you a free belt buckle. Style #1 or #2. Offer expires the end of the year or to buckles on hand.

RIO GRANDE MODELS
Box 4463 Santa Clara Ca 95054

THE HIGH-SIDE in 0n3

KIT No. 1 $33.50

FEATURING:
- FIRST TIME IN STYRENE
- **GRANDT-LINE** HARDWARE THROUGHOUT including ECONOMY DRAFT-GEAR and BOLSTER
- PRE-CUT STYRENE PARTS, including
- **DOUBLE-SCRIBED** PRE-GRAINED FLOOR, SIDES and ENDS
- INCLUDES TRUCKS and COUPLERS
- **THINFILM** DECALS.
- COMPLETE KIT — NOTHING ELSE TO BUY

AT YOUR DEALER OR DIRECT.

master charge VISA

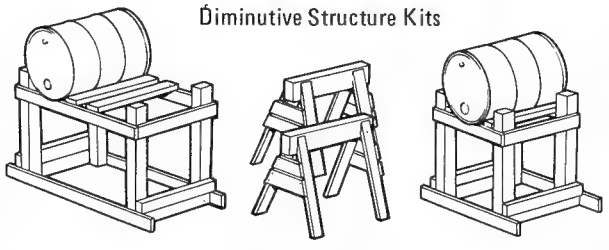
RAIL CROSSING ROAD

THE CROSSING GATE
6468 MORAGA AVENUE
OAKLAND, CA 94611

THE SCALE MODEL WEATHERING COMPANY BRINGS YOU

YARDWARES

Diminutive Structure Kits



¼ inch Scale

Double Barrel Cradle | Ubiquitous Saw Horse (2) | Single Barrel Cradle

- Designed to fit anywhere in your modeling scheme
- Kappler Cut Wood • Precision Sanded Angles • Grandt Line Barrels

Saw Horses and Double Cradle $2.25 each
Single Barrel Cradle . . . 2.00 each
Postage and Handling . . .30

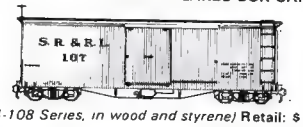
From your local hobby shop or direct from: THE SCALE MODEL WEATHERING COMPANY
Box 1310, Pacifica, California 94044

Calif. residents please add 6% sales tax

On2 Model Railroad Car Kits

SANDY RIVER CAR SHOPS

SANDY RIVER & RANGELEY LAKES BOX CAR 107



(104-108 Series, in wood and styrene) Retail: $19.95

SANDER TYPE STATION IN 0 SCALE

Retail: $15.95

PORTLAND PRODUCTS TRUCKS
SWING MOTION BOLSTER TK 101 $8 95
COMMON BOLSTER TK 102 $8 95

Send a stamped self addressed envelope for details
Mass. Res. please add 5% Sales Tax

SANDY RIVER CAR SHOPS
567 Rockdale Avenue
New Bedford, Mass. 02740

THE GOLD SPIKE TRAINS

LIM	D&RGW gondola W/T&C	$18.95
SLM	Red Mountain Station	21.75
RL	D&RGW boxcar	6.00
RGM	D&RGW pile driver OB	31.25
E&B	D&RGW Short Caboose	15.00
E&B	D&RGW Short Baggage	15.00
E&B	D&RGW Combine	15.00

Send SSAE for Newsletter

1005 PLYMOUTH DRIVE
COLUMBIA, MISSOURI 65201
PH. (314) 445-4030

125 LINE
has been taken over by
Period Graphics Supply Co.
A current listing of
lettering sets is available
for an SSAE or 25¢.

PERIOD GRAPHICS SUPPLY CO.
29688 Franklin Rd.
Southfield, Michigan 48034

OLIVER STEAM RAIL & NAVIGATION

2 - CONDUCTOR DRAWBAR KIT

Eliminate wire & plugs between engine and tender with sound & constant lighting

KIT $6.00

Custom Sound installations

We Nickle Plate Brass Parts
SSAE

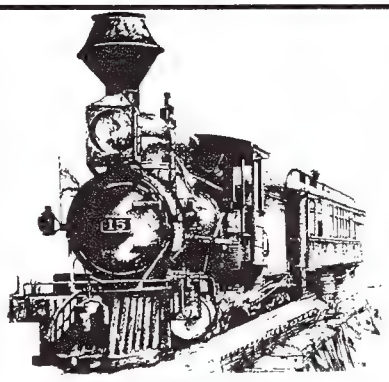
124 S.W. Yamhill Portland Ore.
97201

Narrow Gauge by the Carload

DOWNTOWN HOBBY

Perhaps a bit of an exaggeration, but we are continuing to build our collection of Rio Grande, C&S, SR&RL and other narrow gauge brass and kits in all scales. We certainly want to try to meet your narrow gauge needs. Visit the new Downtown Hobby soon.

22 WEST MADISON ST. • SUBWAY ARCADE
CHICAGO, ILLINOIS 60602 • 312-372-2464



"AROUND THE CIRCLE"

A portfolio of 4 dramatic and exquisite pen and ink reproductions from "Around the Circle"

Each 18" x 24" print depicts a unique and interesting scene. From the Ophir High Line to the Black Canyon. Early Colorado narrow gauge at is finest!

$15 POSTPAID

DAVID ETCHELLS Railart

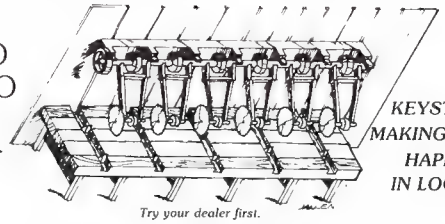
1616 Green Pl.
Longmont, CO 80501
Colo. residents add 3½% sales tax

NEW! NO. 4 MACHINE OF THE MONTH "CUT OFF SAW"

HO — 38 $8.95

USED IN SAWMILLS TO CUT SAWN LUMBER TO LENGTH

* COMPLETE EXPLODED PLANS & TEXT
* 21 CLEAN PRESSURE CASTINGS
* THINLY CAST SAW BLADES



KEYSTONE IS MAKING THINGS HAPPEN IN LOGGING

Try your dealer first.
Pennsylvania residents add 6 percent sales tax.

COMING SOON
HO-119 PLANNING MILL $24.95

Keystone Locomotive Works
159 WHEATLEY AVENUE, NORTHUMBERLAND, PA 17857

WANGLIE'S DEPT. STORE — HO

HISTORY: Chung Li Wanglie and his brother, Sven, built their downtown department store in 1901 . . . still a beautiful and impressive building. Now they've become wishy-washy about retailing and they're anxious to retire and run a small laundry & ski operation. So they're ready to give you a real buy on their store. Only $29.95. Polyester, with details cast in place.

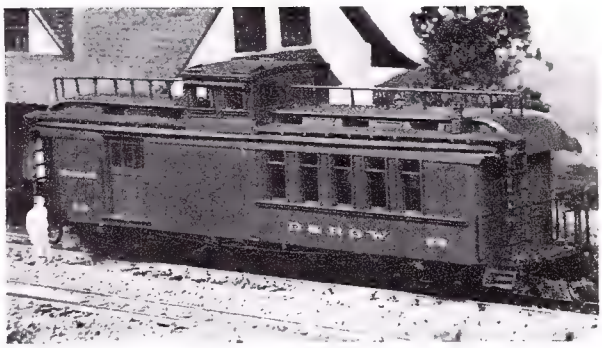
UNASSEMBLED KIT INCLUDES STRUCTURE ONLY
WANGLIE'S DEPT. STORE — HO 5¾"x7¾"x6"H . . . Suggested Retail $29.95

SEE YOUR LOCAL DEALER.

MAGNUSON MODELS, INC. • P. O. Box 199 • Lake Villa, IL 60046

Available Now °°

**AVAILABLE OCTOBER 1, 1979



D&RGW STYLE BAGGAGE/COACH COMBINE KIT #600

Based on combines #212/215 we have combined all the parts from our coach kits, with special scribed siding from EVERGREEN SCALE MODELS and a set of doors by CLIFF GRANDT. This kit is the first ever to offer the modeler an HOn3 combine kit in easy to work with styrene.

Each kit builds one of three versions of this famous car.

KITS #600/700 and #2000 are all $ 18.95 at your local dealers.

KITS #600/700 and #2000 all w/ trucks and dummy couplers.

D&RGW STYLE SHORT BAGGAGE CAR KIT #700

Introduced at RAILFAIR in Denver, and at RAILCON in Princeton, our new short baggage car in HOn3. With the combination of all our major parts, plus, EVERGREEN SCALE MODELS pre-cut sides, and a set of doors from CLIFF GRANDT. While not true in demensions to the prtotype, this car is so close that it will satisfy the most avid narrow gauge modeler.

D&RGW/RGS TYPE BUSINESS CAR KIT #2000

Intoducing another 'freelance' HOn3 car, a total injection molded kit. We built this car using parts from our two coach kits and parts from our caboose kit. You the modeler gets for the first time a business/observation car at a price any railroad can afford. Notice the drum-head at the end, the two utility boxes below the floor, and notice too, the end platfrom detail. We are sure that every modeler will want one of these for his HOn3 empire.

E.& B. VALLEY RAILROAD CO.

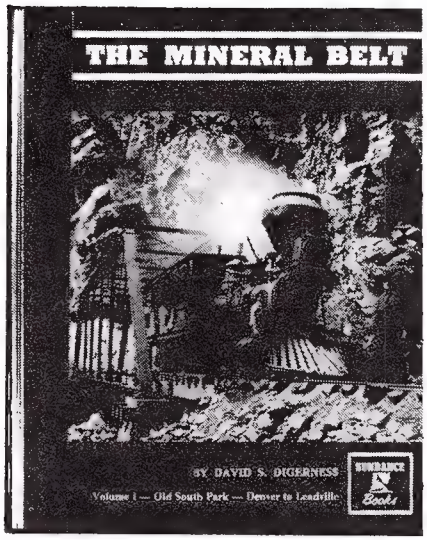
14 Soundview Avenue, White Plains, New York 10606

Combines'212/215 are shown with optional detailing, using #4004 ladders, #4006 Cupola, #4021 Roof Walks. All detailing parts available from your local dealer or the E.& B. Valley.

A NARROW-GAUGE SPECTACULAR!

THE MINERAL BELT

By David S. Digerness and the Editorial Staff of Sundance Publications, Ltd.



OVER 600 ILLUSTRATIONS IN EACH DELUXE VOLUME!

N E W ! ———— Volumes I and II ———— N E W !

The most complete photo-history on the Old South Park narrow-gauge lines—and the supporting mining industry—ever published! Featuring 60 pages of outstanding full-color views, and hundreds of historic 2-color sepia views and black-and-white reproductions—as well as maps, drawings and timetables. 416 pages in each fine volume.

Includes numerous outstanding views of lineside mines, mills, smelters, towns, yards, etc.—in addition to action shots and top-quality DSP&P, DL&G and C&S locomotive portraits. Related Rio Grande views also featured.

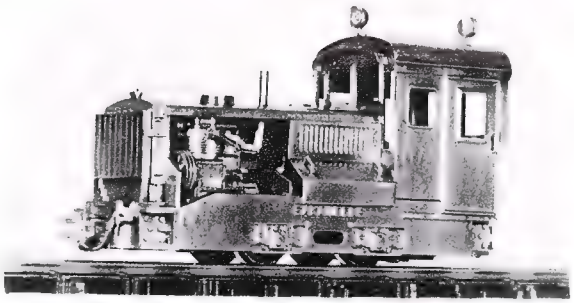
THE MINERAL BELT — Volumes I and II
Postpaid in the U.S. and Canada ..... Each **$45.00**

SUNDANCE PUBLICATIONS Limited
P. O. BOX 597 • SILVERTON, COLORADO 81433

SANGO

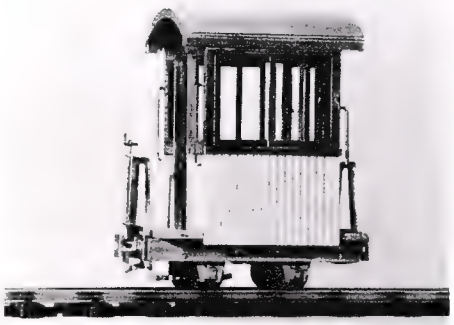
NEW

SANGO makes your On30" world



KISO Logging Railway 5ton DIESEL kit in On30"

Can motor drive 84tol ratio



KISO Logging CABOOSE

SANGO modelrailroad works.
2-29-8 Hohnan Suginami-ku
TOKYO 168 JAPAN.

Courtesy of Robert Sloan

Book Reviews

Two Feet Between the Rails
by Robert C. Jones
Sundance Books
P.O. Box 597
Silverton, CO 81433

It is amazing that a railroad as small as the Sandy River has generated as much literature as it has. It is equally amazing that each of the books discussing this little line is different and adds more to the story of this two foot railroad. Robert Jones's new book *Two Feet Between the Rails* is the first of two volumes on the Sandy River, Sandy River & Rangeley Lakes rail system that ran from 1879 into the 1930's. Volume 1 is sub-titled "The Early Years" and starts out with a description of the people and places in the area around Phillips and Farmington, Maine where the line was built. The story starts many years before the actual construction of the SR RR. The early construction of the line including the story of the Bellerica & Bedford is discussed in detail. The remaining chapters tell about the early problems of running the line and its improvement. There were several other little lines which eventually found their way under SR RR managements. These lines were the Franklin & Megantic, the Phillips and Rangeley, the Kingfield and Dead River and the Eustis Railroad. They are all described in this fine book. There is a chapter on storms, fires and snow-fighting as well as other assorted troubles. The various logging roads that fed into the SR RR are also covered. The book is 416 pages long and is of a large format. It is filled with photographs including many rare and vintage views. Several of the photos are printed full double page size and are very impressive. Many of the photographs have never been published before. There are several color photographs showing locations as they appear today. There is a section in the back of the book consisting of personal comments by people who knew the railroad. Along with these comments are a series of valuation maps showing the whole line section by section.

Volume 1 has very little about the equipment of the line and no equipment drawings. This information is promised for Volume 2. The period covered in Volume 1 is from about 1879 to 1908. Volume 2 will pick it up from there. I found the book was most helpful in helping me to understand the impact of the railroad on the local communities and the lives of the people of the area. It is rich in personal comments and in the personalities of the people who made and ran the line. There are many little stories included, some sad some happy. However, burried in and among these stories are little gems of technical data for the model builder. I found the book well worth reading and must say that it is what got me back into two-foot modeling. Don't miss this book if you have any interest in the two foot lines, narrow gauge in general, or the vintage railroad scene. It sells for $35.00. *Bob Brown*

Denver South Park and Pacific
by M. C. Poor
Rocky Mountain Railroad Club
P. O. Box 2391
Denver, Colorado 80201

Certain railroad books due to their scarcity and the information they contain, become collector's items eagerly sought at premium prices. Surely, Mac Poor's book on the South Park qualifies highly in this category. First published in 1949 by the then fledgling Rocky Mountain Railroad Club, the 1,000 copies printed quickly sold out, and thereafter resold often at staggering prices. Now the club has re-issued this excellent volume as a memorial edition to Mac Poor, its author and lifetime expert on the South Park.

This 500-page work contains all of the original photographs and is excellently reproduced. While certainly not a "picture book", the serious South Park fan will find a wealth of information about the various roads preceding and succeeding the Denver South Park and Pacific Rwy. Poor spent some 10 years in research on the railroad before writing this massive work, and the text reflects that research. Sometimes the amount of detail and corporate dealings make reading a bit tough; however, rarely has so much information been presented about an individual road.

Chapters on wrecks, the snow plow trials occuring near Alpine Tunnel, and personal reminiscences bring the South Park back to life, as do the numerous track plans, charts, and diagrams illustrating various points made in the text. Two full-color drawings by Michael Koch and Phil Ronfor as well as various maps in a pocket at the rear of the book complete this most comprehensive work.

Mac Poor's South Park book is one of the best books ever written about any railroad. You can certainly tell this was a labor of love, and I heartily recommend that you secure a copy of this memorial edition before they are all sold out. It is my understanding that the Rocky Mountain Railroad Club may re-publish other works, such as those by Morris Cafky on the Colorado Midland, if feasible. Thus, obtaining the South Park book not only will provide you with a wealth of information about this fascinating railroad, but also will be a vote for republication of other fine works published by the Rocky Mountain Railroad Club. Grab one before it becomes a collector's item. *Charlie Getz*

The Model Railroading Handbook Vol. II
by Robert Schleicher
Chilton Book Co.
Radnor, PA 19089

Volume I and volume II of *The Model Railroading Handbook* are the most advanced model railroad books published in the United States. Most model railroading books are too basic for most people in the hobby and are aimed at beginners. Robert Schleicher's books however have a lot of material of use to both the beginner and the advanced modeler. Volume II has 18 chapters divided into four sections. The book is copiously illustrated with photographs and diagrams. The first section deals with tools, inspiration, locomotive conversions and scale performance. The second section discusses modular model railroading including an On3 modular system. Switch work, walk-around control, and simplified wiring systems are also described. The next section tells about switching scenarios, modeling real railroads, planning your own layout and modeling the Ma & Pa. The last section consists of descriptions of structure conversions, bridges, and making rivers and trees. There is a list of sources of supply and publications in the back of the book. Twelve pages of color show several scenes of Lonnie Shay's Layout and a nice view of the Model Masterpieces' Colorado Midland, Colorado City yard. I am confident that every model railroader will find much of interest in this book. The book is available for $15.00 in hard cover or $7.95 in soft cover. *Bob Brown*

EVERGREEN HILL DESIGNS

A complete little station designed to meet the needs of country folk or sit on the corner in a downtown area.

(HO VERSION SHOWN)

HO version die cut	EHD-206	$19.95
1/4" version	EHD-2005	$36.95

The little diorama above shows some of the logging tools found in our HO and 1/4" WOODSMAN SETS.

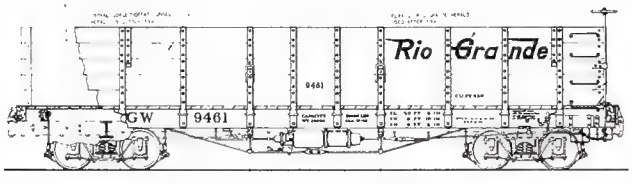
HO Set	EHD-501	$13.95
1/4" Set	EHD-5002	$14.95

These pieces can also be found separately on our new GREEN AND WHITE BLISTER PACK CARDS.

Support your local hobby shop!

P.O. Box 633, Los Molinos, Cal. 96055

Vehicles and figures not included.
Available direct or through better hobby shops
A large S.A.S.E. will bring you flyers on current available items.
Direct orders add $1.50 for shipping
California residents add 6% sales tax.



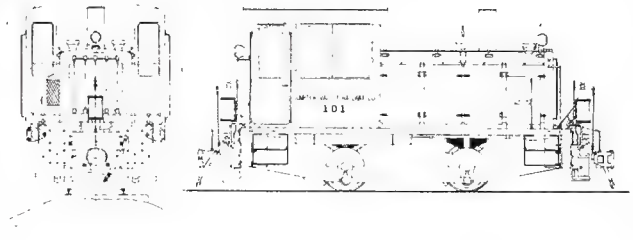
D&RGW "PIPE GONDOLA"

Available now in On3. Sn3 & HOn3 kits for this car to follow soon. All the usual Tomalco features.

Kit #On3-9 ..... $ 19.95

TOMALCO

BOX 158
McCRACKEN
KANSAS
67556



D&RGW #50 DIESEL SWITCHER IN Sn3

Available now as a set of parts only – complete kit as soon as possible. Minutely detailed, all-brass construction with steel drivers & axles. Can be supplied gauged for On2 or S st'd. gauge at no extra cost. Set of parts for D&RGW #50 . . . $67.50.

Send long SSAE (2 stamps, please) for Sn3 Catalog

THE NARROW GAUGE SILVERTON TRAIN And T&SRR TOLTEC GORGE ROUTE SCENIC LINE

vintage Reproductions

a super trio!

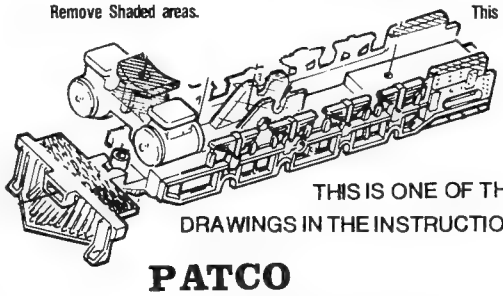
Loco and car transfers
Letterboard overlays
Full color car plaques

O S HO

BOX 7098 • COLO. SPGS., CO 80933

Patco's 1st model Rail Road Kit
A Rework Kit For Your MDC Hon³ Engine

Remove Shaded areas.



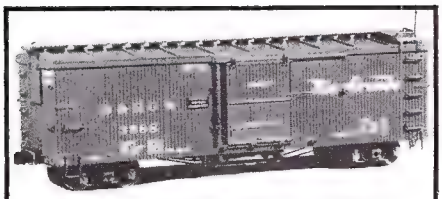
THIS IS ONE OF THE DRAWINGS IN THE INSTRUCTIONS

This Kit is the Foundation to make Your MDC Hon³ Engine RUN and LOOK Like a new BRASS IMPORT.
The GEARS are 84:1 made by N W S L They will give you a good SLOW SPEED with a Conventional Power Pack.
The Gear Box is ADJUSTABLE so you can get a PERFECT ADJUSTMENT on all Gears
A new Plastic CYL Saddle so you can lower the BOILER to the Proper Height.
Other Plastic Parts to improve the LOOKS.
The Kit will work on both models.
Complete instructions on HOW TO is included.

PATCO

5711 FLORIN-PERKINS RD.
SACRAMENTO,CA.95828

PRICE ONLY
$13.95



HOn3 D&RGW BOX CAR KIT

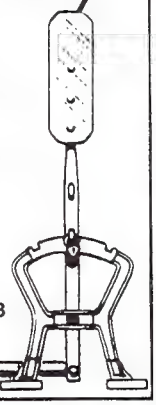
- Realistic – Just like the Prototype
- Beautifully Detailed
- Side Doors Slide
- Car Body is one piece with most of the detail molded (Roof Walk too)
- Precision Throughout – Crisp and Sharp

KIT #130 less decals and trucks only $8.95

THE RAIL LINE CO.
3600 PITTMAN ROAD • INDEPENDENCE, MISSOURI 64052

Ron's Car Shop

Custom ON^3 & O Car & Locomotive Kit Construction



10083 Canyonside Ct.
Spring Valley, CA 92078

Printed Circuit Board Ties
Window Glass and Scriber
Ties Lumber
Barrels
Straight Wire

N-HO-S-O Catalog #2 75¢

Clover House

Post Office Box 62G
Sebastopol, California 95472

GEMINI

FINE QUALITY 1/4" SCALE BRASS CASTINGS FROM WESTERN PROTOTYPES.

Send 35¢ for complete list

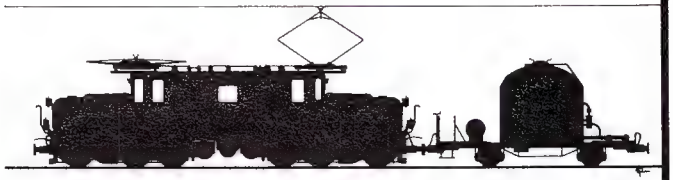
GEMINI SCALE MODELS
New Address:
P.O. Box 583
Alamo, CA 94507

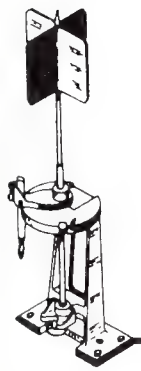
rittech sa

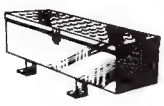
PO Box 8, CH 1232 Confignon-Geneva, Switzerland (022) 57 20 37

EUROPE'S only supplier devoted almost exclusively to
narrow gauge, branchlines, logging and mining operations.

If it is advertised in the Gazette we probably have it in stock or we will try to get it for you. Fast and reliable mail order service. And we speak your language too: English, Deutsch, Français, Italiano.







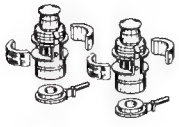
TB-180
D&RGW
Toolbox
$2.25

GE-140
Generator
Early Pyle
$3.65

TS-142
Tender Steps
K-37 (Rear) Pair
$3.45

HL-114
Headlight,
Oil
$3.25

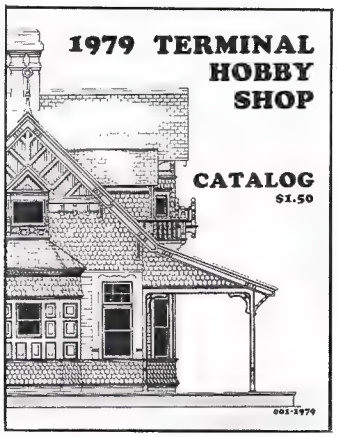
HL-070
Headlight
D&RGW Box
Type
$3.40



ML-025
D&RGW
Radius Marker
With Lens, Pair
$3.75

Send S.A.S.E. For "HO" Or "O" Scale Price List — $ .50 For "O" Scale Illustrated Catalog

THE BACK SHOP Box 2510-N, Huntington Beach, CA 92647



NOW AVAILABLE!

TERMINAL HOBBY SHOP CATALOG

Only $1.50 001-1979

This catalog fills the gap on 30 manufacturers (not listed in Walthers catalogs) such as Alco, Con-Cor N, Custom Brass, Kar Line, Key, Lambert, Staufer, Sunset and more! Featuring ...

- 56 illustrated pages
- 6 NEW manufacturers
- 45 manufacturers' lines represented
- Current prices on all items
- Kits grouped by product category

TERMINAL HOBBY SHOP
5619 W FLORIST AVE MILWAUKEE, WI 53218

O On3 HO HOn3

IHM D&RGW K-37	$985.00
IHM 42 Ton Climax	698.00
PSC Pagosa Junction Car	119.00
PSC EBT Hopper	79.00
PSC Composite Twin Hopper	67.00
PSC Offset Twin Hopper	69.00
PSC Offset Triple Hopper	72.00
CB PRR B-60 Baggage	110.00
CB 2 Bay Covered Hopper	93.00
CB 50' Round Roof Box Car	89.00
CB NYC Wood Caboose	98.00
CB On3 2 Dome Tank Car	75.00
PFM On3 Water Car	63.00
PFM On3 D&RGW Long Caboose	82.00
PFM Std Gauge D&RGW Caboose	79.50
PFM Logging Climax	265.00
WSM C&C HOn3 Caboose	42.00
WSM HOn3 Tank Car	36.00
WSM D&RGW K-27 Slide Valve	150.00
WSM D&RGW K-27 Compound	135.00
WSM D&RGW C-25	135.00
WSM 4 Truck Shay	325.00
WSM MFK Shay Class "A"	212.50
WSM 2 Truck Kelly Shay HOn3	200.00
WSM NYC J-1 4-6-4	765.00
WSM 200 Ton Crane	420.00
WSM ATSF 2-8-2	480.00
Sunset NYC K-S 4-6-2	497.00
Sunset USRA Heavy 4-8-2	450.00
Hallmark D&RGW #320 Coach	120.00
Hallmark T&P Caboose	108.00

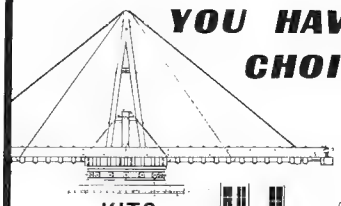
Lge. SSAE for list Specify O or HO

Al's Rails

P.O. Box 485 Hazleton, PA. 18201
569 Alter St. Phone (717) 454-5452

Visa, Layaway & Mastercharge Available

YOU HAVE A CHOICE!



KITS

SCRATCH BUILD DETAILS

OUR BROAD PRODUCT LINE OFFERS YOU:

- CRAFTSMAN STRUCTURE KITS
- METAL AND STYRENE LINESIDE DETAILS / KITS
- CUSTOM BUILDERS PARTS

Sequoia SCALE MODELS
P. O. Box 3521 Fullerton, California 92634
CATALOG 50¢ U.S.
SEE YOUR DEALER TODAY

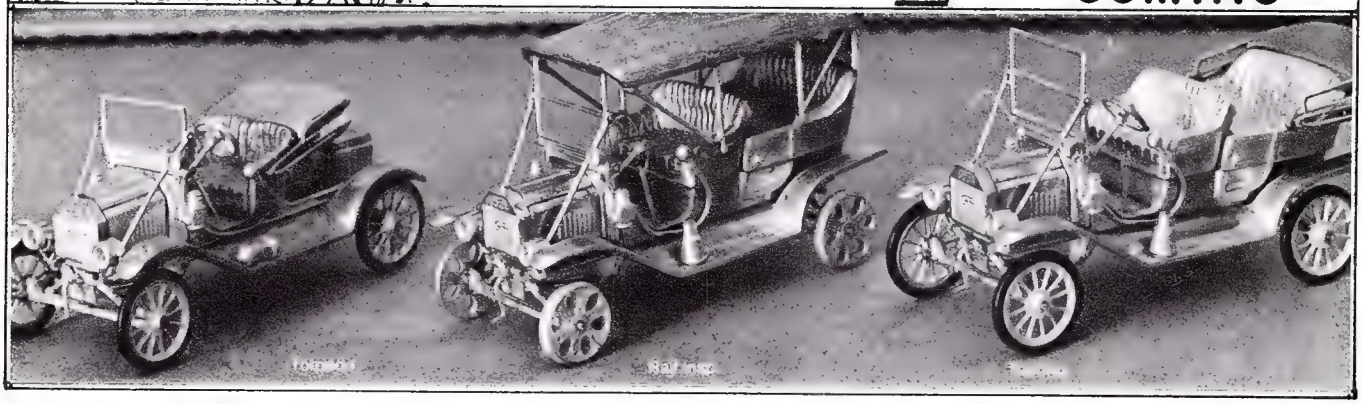
National Motor Co.
P. O. BOX 931
WALLA WALLA, WA.
99362

'O' SCALE

MODEL "T" FORDS

- DLX. WHITE METAL KITS
- RUBBER TIRES
- SPEC. TOP UP OR TOP DOWN

AND MORE COMING



BOOKS ON NARROW GAUGE RAILROADS

Rails to the Rockies - By Grogory LePak. Story of the railroads that penetrated the Rockies, told with more than 200 pictures **$18.95**

Rails Around the Loop - By Gary Morgan. Story of the Georgetown Loop. Soft Cover, 5½" x 8½", 40 pages **$2.50**

Over the Loop - Reproduction of 1910 brochure showing over 40 photos of the Georgetown Loop. Soft Cover, 11" x 8½", 24 pages **$2.50**

The Colorado Rail Annuals, published by the Colorado Railroad Museum

The Collected Annuals Nos. 1-6 - All 26 out-of-print articles from the 1963-1969 Annuals, collected into one hardbound book **$8.50**

Annual No. 7 - To Santa Fe by Narrow Gauge - The D&RG's Chili Line. Heavy Paper Cover. Not included in Collected Annuals **$3.50**

Cumbres Pass Issue - The Rio Grande's Cumbres Pass Line. Originally part of the 1967 Annual. Paper Cover. Not in Collected Annuals ... **$1.95**

Annual No. 8 - Scenic Line of the World - By Chappell & Hauk. Detail study of the original D&RG narrow gauge line **$9.50**

Annual No. 9 - Tin Feathers and Gasoline Fumes, The Prospector, A Tribute to Fred Jukes and Track of the Cats, all in one book **$9.75**

Annual No. 10 - Narrow Gauge to Central and Silver Plume - The Clear Creek Line in Story and Photo. By Cornelius Hauk **$9.75**

Annual No. 11 - Narrow Gauge in Northern Mexico, Otto Perry and Train Time in Ouray, all in one book **$9.75**

Annual No. 12 - The South Park Line, A Concise History - By Robert Richardson and Gordon Chappell. The legendary Denver South Park and Pacific **$14.75**

Annual No. 13 - Florence & Cripple Creek R.R. - Gold mining and narrow gauge railroading in the rugged mountains **$14.75**

Annual No. 14 - Three Legends on Rails, The Lake City Branch and The Creede Branch, all in one book **$16.50**

Locomotives of the Rio Grande - Detailed locomotive roster of the Rio Grande system from 1870 to 1978. Heavy Paper Cover **$9.95**

Locomotive Folio Books - Carefully reproduced from rare originals

Colorado & Southern - 1903. 50 pages. Standard and Narrow Gauge **$15.00**

Colorado & Southern, Part II - 22 pages. Continues through 2-10-2's **$9.00**

Colorado Springs & Cripple Creek District - 26 pages. Includes cars **$7.75**

Denver & Salt Lake - Moffat Road - 22 pages. All locomotive classes plus snow plows **$7.00**

D&SL is staple bound. Others are unbound page sets.

Narrow Gauge Portrait - South Pacific Coast - By Bruce MacGregor. Many photos, maps and drawings. California Coast narrow gauge **$16.50**

American Narrow Gauge - By John Krause. Narrow Gauge from Pennsylvania to Alaska. Common carriers and private loggers. Beautiful new book **$24.95**

Rails, Sagebrush and Pine - Mallory Hope Ferrell. The Sumpter Valley **$9.50**

Silver San Juan - Mallory Hope Ferrell. Over 600 pages of magnificent book on the Rio Grande Southern **$39.95**

Denver South Park and Pacific - Memorial Edition, reprinted in memory of author M.C. Poor. A Classic **$24.00**

The Rainbow Route - By Sloan and Skrowronski. The colorful Otto Mear Silverton Shortlines. Deluxe book **$45.00**

The Mineral Belt - Vol I - By David Digerness. Old South Park, Denver to Leadville. Deluxe Edition **$45.00**

The Mineral Belt - Vol II - By David Digerness. Old South Park, Across the Great Divide. Deluxe Edition **$45.00**

Rio Grande to the Pacific! - By Robert LeMassena. A year-by-year history of the entire Rio Grande system **$30.00**

Two Feet Between the Rails - By Robert Jones. Detailed history of the Sandy River & Rangeley Lakes Railroad. Beautiful Book **$35.00**

Slim Rails Through the Sand - By George Turner. The Carson & Colorado, Southern Pacific narrow gauge railroad **$8.95**

Gold Rush Narrow Gauge - by Cy Martin. The White Pass and Yukon railroad in Alaska **$7.95**

Narrow Gauge Nostalgia - by George Turner. Eight narrow gauge railroads of the West **$12.95**

Narrow Gauge to the Redwoods - By Dickinson, Wurm and Graves. The North Pacific Coast Railway and its Paddle-Wheel Steamers **$12.95**

Narrow Gauge the World Over - By Whitehouse and Allen. Photos and facts on 25 years of narrow gauge steam **$17.95**

Colorado Memories of the Narrow Gauge Circle - By Krause and Grenard. Many new photos of the last 20 years of Colorado Narrow Gauge. New Book, Soft Cover, 11" x 8½" **$12.00**

The Maine Two-Footers - By L.W. Moody. Definitive history of Maine's two-foot railroad empires. 6" x 9" **$7.95**

Mexican Narrow Gauge - By Gerald Best. Steam lines using U.S.-built equipment south of the border **$7.50**

Narrow Gauge in the Rockies - By Beebe and Clegg. Famous pair describe the Colorado slim railroads in pictures and prose **$12.95**

Nevada County Narrow Gauge - By Gerald Best. California railroad that hauled gold **$7.50**

Uintah Railway - By Bender. History of one of the last Rocky Mountain railroads **$9.50**

South Pacific Coast - By Bruce MacGregor. 50 years of steaming through the redwoods **$10.95**

The Switzerland Trail of America - Second printing of this famous book. Limited edition, numbered and autographed **$37.50**

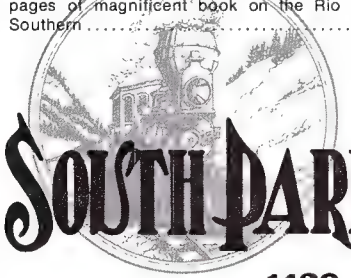
D&RGW Narrow Gauge Plans - Locomotives, cars and work equipment. Includes photos. 17" x 11", Soft Cover **$6.95**

Rio Grande Southern Railroad - By Crum. A new printing of this long popular history **$19.95**

Narrow Gauge Steam Locomotives - Four prints by Harlan Hiney, featuring Colorado & Southern, Southern Pacific, Sandy River and Westside Lumber locomotive. 10" x 8" **$3.95**

D&RGW C-21 - Top Quality color print of engine 561 working a train up a mine branch in the Rockies. By Dick Sparks. Shipped in Mailing Tube. 10"x13" .. **$4.00**

ORDERS UNDER $10.00 ADD 50¢ HANDLING. FOREIGN ORDERS ADD $1.00 HANDLING. MISSOURI RESIDENTS ADD 4.625% SALES TAX. MASTER CHARGE AND VISA ACCEPTED. SEND CARD NUMBER AND EXPIRATION DATE WITH ORDER.



SOUTH PARK PRODUCTIONS

1430 Trelane, St. Louis, Mo. 63126

S/Sn3 IS GROW-ING

Here is where it's at in model railroading today. S scale is the ideal size, not too big, not too small. It's like blending the size of O gauge cars and locomotives with the operational possibilities of HO gauge.

Get into S/Sn3 – a little, or a lot. Read the S Gaugian magazine for ideas and product news. $10.00 per year; $12.00 outside USA. Single issue price: $1.75.

We offer these other books for you:

Your Introduction to S Gauge – 76-page guide is filled with articles, photos, products available. $3.50 plus $.75 postage/handling.

S Gauge Building & Repair Manual – 76-page manual offers construction and repair articles. $3.00 plus $.75 postage/handling.

Cars & Locomotives – 44-page book details building cars and engines in S gauge. $3.50 plus $.75 postage/handling.

D&RGW Narrow Gauge Plan Book – 56-page (11x17-inch) book of official drawings of steam locos, freight, passenger and work equip. $6.95 plus $.65 postage/handling.

S gaugian **Box 666 Tolono, Illinois 61880**

ELECTRONIC POWER **CABTROLLERS**

THE FINEST MODEL RAILROAD ELECTRONIC THROTTLES AVAILABLE

Our customers must agree.

THE ONLY UNIT THAT THE OTHERS ARE MEASURED BY

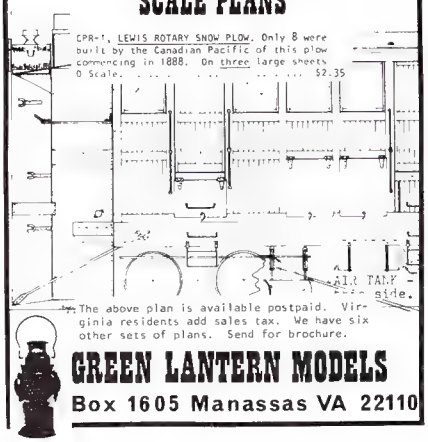
FANTASTIC — BEAUTIFUL CONTROL – FANTASTIC FOR OPERATIONS! — Beautiful!! — Best Pack I ever operated. It works like the real thing. — Excellent! — Fantastic – I can realistic railroading it is a must. — I am still amazed by the great performance. — THIS UNIT ADDS A TOTALLY NEW CONCEPT TO THE OPERATION — GREAT

DYNATROL & OTHER POWER PRODUCTS

POWER SYSTEMS INC
56 BELLIS CIRCLE
CAMBRIDGE
MASS
02140

Send Stamped, Self Addressed business Envelope for FREE Catalog

SCALE PLANS


CPR-1, LEWIS ROTARY SNOW PLOW. Only 8 were built by the Canadian Pacific of this plow commencing in 1888. On three large sheets
O Scale $2.35
ALL TANK – side.

The above plan is available postpaid. Virginia residents add sales tax. We have six other sets of plans. Send for brochure.

GREEN LANTERN MODELS

Box 1605 Manassas VA 22110

P.O. Box 8506 Long Beach, CA 90808

To see more of our fine products, send $1.00 for our catalog, with special coupon. On all orders, add $1.00 postage & handling, plus 6% Calif. sales tax to:

K&L HOUSE OF WOOD
&
SCRATCH BUILDERS WORK BENCH
P.O. BOX 8506
Long Beach, CA 90808

K & L HOUSE OF WOOD *NOW FEATURES. . . .*
KAPPLER MILL & LUMBER CO.

Scratch materials in bulk & Kappler Wood in all of our kits.
Buy direct from us.

FINE BASS WOOD BY KAPPLER

HO Scale in 12" Lengths 95¢ per package.

SIZE	*PCS PER PAK*
2 x 4	14
2 x 6	14
2 x 8	11
2 x 10	11
2 x 12	10
4 x 4	14
4 x 6	12
4 x 8	11
4 x 10	11
4 x 12	10
6 x 6	12
6 x 8	11
6 x 10	10
6 x 12	9
8 x 8	10
8 x 10	10
8 x 12	9
10 x 10	10
10 x 12	8
12 x 12	8

COMMERCIAL HARDWOOD DOWELING

SIZE	*PCS PER PAK*	*PRICE PER PAK*
1/12 x 6"	50	$ .95 ea.
1/12 x 12"	50	1.75 ea.
1/8 x 6"	45	.95 ea.
1/8 x 12"	45	1.75 ea.
1/4 x 6"	40	.95 ea.
1/4 x 12"	40	1.75 ea.

PHOSPHORUS BRONZE SPRING WIRE

.010	50' Coil	$ .90 ea.
.010	100' Coil	1.70 ea.
.013	50' Coil	1.10 ea.
.013	100' Coil	2.00 ea.
.016	50' Coil	1.10 ea.
.016	100' Coil	2.00 ea.
.018	25' Coil	.90 ea.
.018	50' Coil	1.70 ea.

CORRUGATED SIDING (SILVER BOND PAPER)

WIDTH & LENGTH	*PCS PER PAK*	*SUG. LIST*
2" x 6"	10	$ 1.00
2½" x 6"	9	1.25
3" x 6"	7	1.50
4" x 6"	5	2.00
Assortment pak 4 of each size	16	3.00

BASS WOOD LADDERS (by Kappler)

2' x 24' (HO)	2	$1.00
2' x 24' (O)	2	1.50

BASS WOOD SCRIBED SIDING (By Kappler)

12"L x 3½"W x 1/32" T Scribing 3/32"	2	$2.25

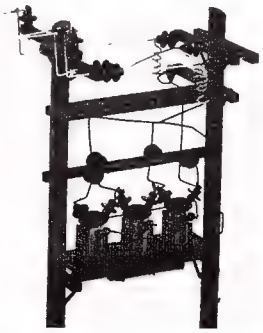
MICRO SWITCHES FINGER TOUCH CONTROL

¼"W x 1¼"L x 13/16"H ..... $ .35 ea.

Power Platform

HO SCALE
#336 36 Ft. Platform $ 6.50
#350 50 Ft. Platform 6.50

O SCALE
#836 36 Ft. Platform $8.95

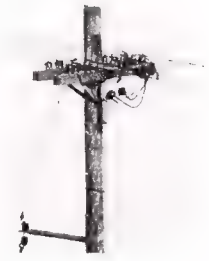


In this kit there are 2 heavy duty poles and 2 standard duty poles (Diameter) for your option. There is a diode in the kit, this changes AC to DC ½ wave on one side of the platform and leaves AC on the other side. The DC side can be used for small motors or any DC ½ wave application up to 18 volts. This type unit is used where lots of power is needed in a small area.

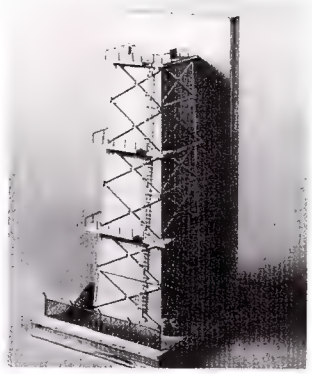
Power Poles

HO SCALE
#136 ⅛ Inch Dowel 36 Ft. Poles $ 4.50
#150 ⅛ Inch Dowel 50 Ft. Poles 4.50
#236 5/32 Inch Dowel 36 Ft. Poles 4.50
#250 5/32 Inch Dowel 50 Ft. Poles 4.50

O SCALE
#736 3/16 Inch Dowel 36 Ft. Poles $ 7.20



All of the above kits have 2 primary & 10 secondary poles. Wire from pole to pole is not included. We suggest using our #50 Phosphorus Bronze Wire for hook up. AC or DC up to 18 volts.



Adkison Savings (oil well bank)

Kit #4 (Money Bank) $16.95

A great conversation piece. Fun and easy to build. All wood, with scribed siding, strip wood by Kappler, Grandt Bolt Castings, barrels, chain link fence, wood ladders, and wooden base and back. This oil well bank will save you $$$; just think of all those wonderful things you will be able to buy. Two also would make terrific book ends.

Rural Power Poles

Kit #126 HO Scale $ 4.50
Kit #726 O Scale 7.20

This kit comes with 1 primary & 23 secondary poles. Wire from pole to pole is included. This type pole was and still is used in the rural areas.

the Railway Express Limited

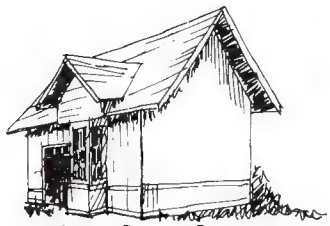
STORE HOURS
TUESDAY-FRIDAY 12:00 9:00
SATURDAY, SUNDAY 12:00 5:00
CLOSED MONDAY

TRAINS
O·HO·N

9106 Bolsa Ave. Westminster, Ca. 92683
(714) 894-7778

Maybe you have seen our ads and are wondering what kind of stock we got. Wonder no more. We got the same stuff everybody else has. Look at any of the ads in this magazine; we've got the same stuff. What we got that "they" don't got is DEALS! Oy, such deals we will give you, you wouldn't believe. Listen, why should we bore you with lists – Lee Town, C.H.B., Durango Press, the Structure Company, Rio Grande Models – believe us, if somebody makes it, we probably got it. So give us a call, or better yet, come in. We'll give you a good deal, a cup of coffee, some chicken soup, and service – service with a smile, and just a hint of barely controlled hysteria. Remember our motto, "If it's in stock, we got it".

CORNER OF BOLSA AND MAGNOLIA IN THE WILLIAMSBURG SQUARE



abajo depot

3808 carlisle, n.e.
albuquerque, new mexico 87107

NARROW GAUGE & SHORTLINE POWER

HALLMARK MKT J-5 2-6-0	185
PFM Harrington Lumber Shay HO	399
PRECISION D&RGW S-33 0-6-0	234
PRECISION On3 D&RGW K-37 kit	689
KEY Great Northern F-1 2-8-0	119
WESTSIDE Ali-San Two truck Shay HO	269
WESTSIDE B-1 Shay HO	385
WESTSIDE Hassinger 4 truck shay HOn3	395
WESTSIDE MFK Two Truck Shay HO	239
WESTSIDE D&RGW C-16 #278 HOn3	139
WESTSIDE SP MK-11 2-8-2	169
WESTSIDE SP P-1 4-6-2	119
IRON HORSE On3 K-37 2-8-2 #494	1185

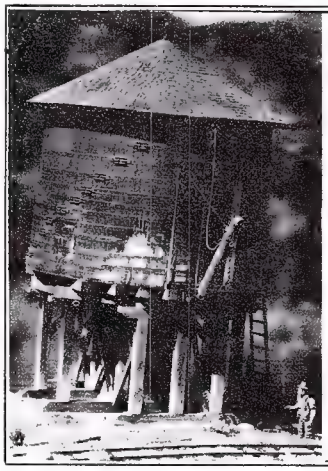
DISCOUNTS: 10% off, cash with order. 7% off, credit cards (MC or VISA). Please include all info on card. Write or call for complete list.
3808 carlisle, n.e., (505) 881-2322
albuquerque, new mexico 87107

Watercolor Originals by Jan Rons

Sensitive, beautifully rendered, authentically detailed railart with emphasis on narrow gauge and short line subjects.

Send $1.00 for brochure

RONS ART GRAPHICS
4045 E. Palm Lane
Phoenix, Az. 85008



S n3 WATER TANK

D&RGW OR R G S

from

CAST EPOXY
• ROOF
• TANK
• FOOTINGS
Precut wood—
• Cast metal details

$29.95

Direct or at your Dealer

the V. & T. SHOPS

Box 5597 Washington station RENO, NV 89513

New in "O" Scale

JD-67 Shop Hand, JD-68 Shop Hand, JD-69 Recliner, JD-70 Leaner, JD-71 Conductor ..... $ 1.95 ea.

C.H.B. Models, P. O. Box 93, Lakehurst, NJ 08733

SOFTCOVER BOOK SAVINGS

Western Maryland Diesels	9.95
The "DO" Lines	6.75
A Decade of D&H	5.95
The Final Years of the NYO&W	6.75
The New Haven, A Fond Look	9.00
Short Line Guide	9.95
Grand Trunk Heritage	3.50
New York Central Diesels	12.75
Narrow Gauge Circle	10.50
Cass Scenic Railroad	2.60
Long Island Railroad	7.50
The Remarkable GG-1	4.20

Book Shipping 50¢ up to $10.00 order, $1.00 on orders over $10

MODEL RAILROAD SAVINGS

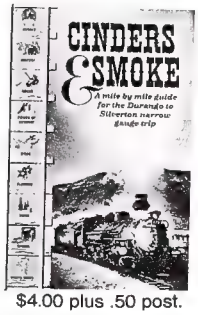
KEYSTONE Bandsaw Mill	45.00
KEYSTONE Company Houses	17.50
KEYSTONE H.O. GE 44 Ton Diesel	60.00
KEYSTONE Passenger Shelter	12.50
[illegible] Mack Log Truck	9.95
[illegible] Mack RD Wrecker	13.50
[illegible] CU Mack Stake Truck	9.00
MICRO Timber Assortment	2.10
MICRO Pulpwood Load	1.75
MICRO Gondola Load	1.75
PSI 550 Throttle	45.00
PSI 200 Memory Throttle	135.00
PSI Dynatrol (write for details)	
Precision Scale Track in 3 foot sections sold in groups of 6	15.50

The Rail Image
P.O. Box 289 Denville, NJ 07834
$1.00 will bring full catalog & two sample slides

HAWAIIAN NARROW GAUGE — Sugar Trains Pictorial, autographed, Detail Plans — $19.50. Reg. Edition $15.50. "NARROW GAUGE IN A KINGDOM, The Hawaiian Railroad Company 1878-1897" $4.95. J.C. Conde', P.O. Box 146, St. Mathews Sta. San Mateo, Ca. 94401. Cal. Res. add 6% Tax & $1.00 P&H on Books. Dealers invited.

KAHULUI RAIL ROAD COMPANY

COMPANIONS FOR COLORADO NARROW GAUGE RAILROADING

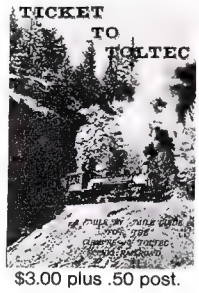


$4.00 plus .50 post.

GUIDEBOOKS
by Doris B. Osterwald
with special sections on

EQUIPMENT • HISTORY
CONSTRUCTION • NATURE
OPERATION • GEOLOGY

Both books postpaid $7.50



$3.00 plus .50 post.

WESTERN GUIDEWAYS BOX 15532, LAKEWOOD, CO, 80215

10% OFF Listed Prices*
For Full Payment
AT PERRY'S

Visa
Master Charge
ADD 2%, max. $3 for UPS
*Except SOHO & sale Mds.
O SCALE IN STOCK

***SPECIAL "O" SALE ITEMS - NO 10% OFF PRICE**
USE LAY-A-WAY 20% DOWN, 2% shipping $3 Max.

*CB On 3 D&RGW TCX 2-dome tank car	69.00
*Iron Horse On3 Baldwin 2-6-O NCNG #5	629.95
*IHM 16 ton tee boiler Shay	now 598.00
*IHM On3 Mich. Cal #2 Shay	now 525.00
Reg Stock Custom Brass RS-3 diesel	359.00
CB Alco S-2 diesel	372.00
CB On3 C&S 4-wheel caboose	55.00
HALLMARK SF drovers or mixed train cab	120.00
PFM Sn3 D&RGW short caboose	55.00
PFM Sn3 Pagosa Junction car	72.00
PFM On3 D&RGW K-36 2-8-2	1,196.00
SUNSET On3 DRG C-16 2-8-O	412.00
SUNSET SF steel caboose N/P	99.95
SUNSET N&W "J" 4-8-4	625.00
ORIENTAL UP CA-9 caboose	95.00
EMP-MIDLAND On3 D&RGW stock car	63.95
WMC B&O P-7 4-6-2 original	575.00
WMC SF 3160 2-8-2	539.00
WMC S.P. S-10 O-6-O	465.00
WMC SP #217 O-6-OT	465.00
WMC On3 F&CC caboose	59.95

HO SALE IN STOCK
***SPECIAL HO SALE ITEMS - NO 10% OFF PRICE**
LAY-A-WAY 20% DOWN, 2% $1 Min/$3 Max ship'g

*NWSL 43' log car w/trucks	now ea 6.25
*HMK Wabash M-1 4-8-2	now 109.00
*HALLMARK Frisco 1306 2-8-O	199.00
*HALLMARK I.C. 2-8-O	98.00
*OVERLAND UP 4-10-2	138.00
*WMC D&RGW HOn3 C25 2-8-O	125.00
*WMC Wabash J-1 4-6-4 C/P Blue	130.00
*WMC B&O Q4d 2-8-2	now 140.00
*WMC SP P-10 4-6-2 nonstrmlnd	236.00
Reg HO stock PFM 65 ton Heisler	311.00
PFM Michigan #2 2-truck Shay	324.00
PFM Cherry River 3-truck Shay	372.00
NWSL HO CN 60 ton vertical boiler Shay	250.00
WMC HOn3 logging 4-truck Shay	360.00
WMC HO Porter Mogul 2-6-O F/P	175.00
WMC Ali-San HOn3 2-trk Shay N/P	245.00
WMC SP 1905 tank car	29.95
EMP-MIDLAND GW Baldwin 2-10-O	199.00
E-M HOn3 D&RGW box or refeer	ea 39.95
HALLMARK MoPac 2-8-O	135.00
KEY USRA UP 2-8-2	159.95
KEY D&RGW HOn3 C18 #318 2-8-O	140.00
KEY D&RGW K-59 2-8-2	140.00

SEND LARGE SSAE FOR FREE 8 PAGE LIST OF HO/HOn3 IN STOCK NEW, USED BRASS ITEMS & LAY-A-WAY INFORMATION. SEND SSAE FOR 2 PAGE "O" LIST.

Perry's Hobbies
P.O. Box 68G
At Becker's Super Valu.
Morgan, MN. Phone (507) 249-3173
56266

BIG ONES & little ones!

[NWSL]

Alco Minarets 2-8-2T in O Scale

AVAILABLE NOW! The ALCO MINARETS logging locomotive in O scale. This mighty brute from the woods, first built in 1923 for the Sugar Pine Lumber Co, can now be part of your logging or shortline operation. This fine model combines an exquisitly detailed superstructure with a powerful and smooth running mechanisim, faithfully reproduced for your modeling enjoyment. If not already included, your warranty card gets you a special package containing plan sheets, a detailed history and 6 sheets of decals with over 35 roadnames. Suggested list is $784. See it at your nearest NWSL dealer today.

20 ton Class B Dunkirk in HO & HOn3

COMING SOON! Shown above is the first completed production sample of our upcoming 20 ton Class B DUNKIRK. Production is well along on this, the fourth in our series of tiny geared lokies, and should be available sometime later this year at your NWSL dealer in both HO and HOn3. No price yet, but it should retail for somewhat less than $200. Reservations are now being accepted, so don't miss out on this limited production model.

Flat Can Motors

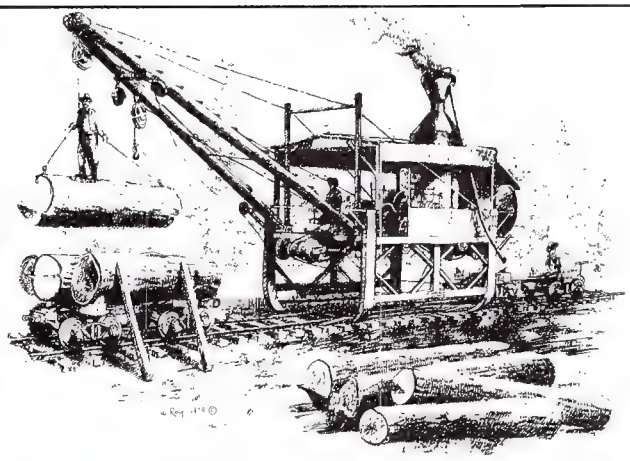
AVAILABLE NOW! The new SAGAMI flat can motors-designed to fit narrow (11/16") firebox steam and narrow hood diesels with up to 50% more power. 18 mm wide x 23mm high x 33mm(single & double shaft) and 36mm (sql shft only) lengths. 12 VDC, 2.4mm shaft diameter. $19.95 each.

Gas-Electric Power Trucks

This truckset is specifically designed for the St. Louis/Electro-Motive Gas Electric cars of the 1924-25 period as used by GN, NP, GW, and others. Each set includes 2 completely assembled trucks, one unpowered, and one powered as shown by 2 NWSL MAGIC CARPET drive units installed in Q-CAR Co. 23EM sideframes. Available with either NWSL Q or PSC Std. tread styles. A kit for this car will be offered this fall by AMERICAN STD. CAR CO. Suggested list is $77.50 per pair.

For more details on these & other NWSL products, see your nearest NWSL dealer or send a SSAE direct today!

NorthWest Short Line
BOX 423 SEATTLE, WA. 98111



the McGiffert Log Loader

Coming in the near future will be the two axle McGiffert Log Loader. Patterns are being made from plans and dimensions supplied by Bill Roy. The introduction of this kit will introduce our line of logging machinery. Watch our ads for future releases.

PRICE: TO BE ANNOUNCED

RIO GRANDE MODELS LTD.

Box 4463 Santa Clara, CA 95054

Chooch ENTERPRISES INC. PRESENTS

THE HANDCAR SHED plus THE FUEL SHED both in 1/4" SCALE

The **HANDCAR SHED AND FUEL SHED** are two little additions to our growing series of nostalgic structures cast in rigid urethane. Designed from original railroad blueprints, both these structures come with detail parts from Grandt Line. Fully illustrated plans and instructions make this kit easy to assemble! Now, there's a place to showoff your beautifully detailed handcar or "pop" car.

LIMITED PRODUCTION...So order your kit today! No yard is complete without these two charming "little" structures.

- **Kit #6106, $28.50 plus $2.00 p & h on direct orders.**
- Available at your dealer.
- Your dealer can get our goodies from Walthers, F.E.D., or Train Center.
- **New** 1/8" Scale catalog - $1 SASE
- Keep watching...there's more to come.

• **P.O. BOX 3882, GLENDALE, CALIF. 91201** •

Custom Decals

Special Introductory Offer

Send a self-addressed stamped envelope today and we'll send you free sample decals and literature. We also handle silk screen supplies for the hobbyist.

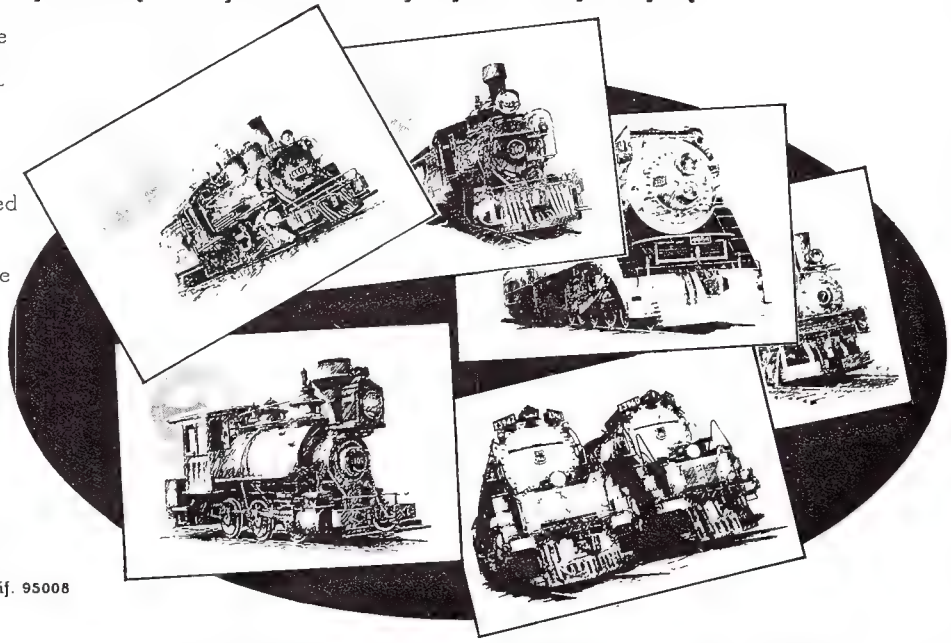
Custom Screen & Decal Co.
P.O. BOX 17407-1
EUCLID, OHIO 44117

NOW AVAILABLE

RAILROAD CORRESPONDENCE CARDS . . .

featuring steam power from narrow gauge to "BIG BOYS"

Just in time for the holidays, three different sets are available with twenty four cards to each set containing two each of 12 different illustrations. Printed on a parchment paper with matching envelopes each card is sized to 6¼ x 4½ inches when folded and printed in black ink. Each card displays a written history on the back fold about the locomotive image on the front.



$7.95
for each set of 24 cards and envelopes.
California residents please add 6% tax

Send your check or money-order to
M. F. Kotowski Railroad Art
21 N. Harrison Ave. Campbell, Calif. 95008

FREE
Fully illustrated 32 page catalog available listing all prints and paintings from the M. F. Kotowski collection.

B-SERIES SET

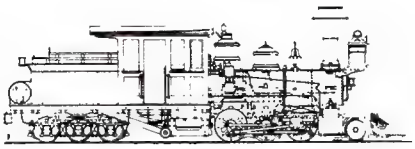
DENVER AND RIO GRANDE CHALLENGER L-105
NORFOLK AND WESTERN CLASS A
PENNSYLVANIA HC-1
CHESAPEAK AND OHIO ALLEGHENY H-8
UNION PACIFIC BIG BOY
THE VIRGINIAN
THE ERIE T.P.&E.X.
NORTHERN PACIFIC Z-4
GREAT NORTHERN R-2
SOUTHERN PACIFIC AC-12
UNION PACIFIC CHALLENGERS
PENNSYLVANIA RAILROAD Q-2

M-SERIES SET

UNION PACIFIC NO. 6000
UNION PACIFIC 7000 CLASS
NEW YORK CENTRAL J-3a NO. 5450
DENVER AND R.O.GRANDE WESTERN M-68
SANTA FE NO. 1000
NEW YORK CENTRAL J-1
SANTA FE NO. 3400 WITH TRAIN
DENVER AND R.O.GRANDE WESTERN M-64
SANTA FE NO. 3751
SOUTHERN PACIFIC DAYLIGHT NO. 4454
PENNSYLVANIA I-1sa
CHESAPEAK AND OHIO T-1

N-SERIES SET

RIO GRANDE SOUTHERN NO. 42
DENVER AND RIO GRANDE WESTERN NO. 346 WITH TRAIN
R.O.GRANDE SOUTHERN NO. 105
DENVER AND RIO GRANDE WESTERN NO. 464 THREE QUARTER VIEW
DENVER AND RIO GRANDE WESTERN NO. 318
SAN LUIS VALLEY NO. 106
COLORADO AND SOUTHERN NO. 11
KLICKITAT LUMBER CO. NO. 1
SANTA FE NO. 1200
PENNSYLVANIA RAILROAD D-16
SOUTHERN PACIFIC P-1 & TH TRAIN
THE ENGINEER



P.F.M.-WESTSIDE-LAMBERT

HO-HOn3 • NEW - USED

LITTLE TOWN HOBBIES

118 WOODLAWN CTR.
LITTLETON, COLO. 80120

John's Train Shop, Inc.

Just 5 Blocks North of I-94 • Lexington Exit

100% Model Railroading — We have in stock Narrow Gauge Kits, Decals, and supplies, in On3, Sn3 and HOn3.

VISA®

THE PIECES AND PARTS SHOP
A Scratch Builder's Delight
523 NORTH LEXINGTON PARKWAY
ST. PAUL, MINNESOTA 55104

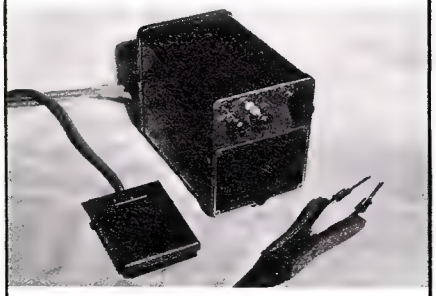
master charge

(Area Code) 612- 646-7781

Store Hours
Mon.-Thurs. 9-5
Friday 9-8
Saturday 9-4

Think PBL for:

Professional soldering tools like the:



Soldering Tweezer Set–$104.95 ppd.

More info? Send 15¢ stamp!
PBL • Box 749 • Chama, N.M. 87520
(505) 756-2419
Prices subject to change (unfortunately)

HOn3 HOn2½

Track components for realistic narrow gauge modeling.
Flex-Trak: HOn2½ Code 55, HOn3 Code 40, 55 & 70
Rail: Code 40 (40 lb.), 55 (75 lb.) & 70 (100 lb.)
Scale Ties: HOn3, untreated or stained and weathered.
Rail Joiners: Codes 40, 55 & 70
Spikes: Small & medium size.

Send #10 SSAE for complete list. Ask your local dealer to stock Rail Craft products.

Rail Craft PRODUCTS

2201 Atwater, St. Louis, Mo. 63133

FLEX–RIGHT

HO *FLEX-RIGHT* IS IN STOCK.
THE ULTIMATE IN FLEXIBLE TRACK!

Standard Gauge, .081 Rail (133-136# section, 3' lengths, lead free nickel silver.

9' delrin ties, dark gray, matte finish, wood grain on top surface and ends. 54 ties to the foot. No sprue marks when track is laid.

Tie plates with scale spike heads.

Rail anchors for prototype appearance and added strength.

Rail joiners are heavy investment cast nickel silver to insure firm joints and a prototype appearance. These are similar to the joiners used with RIGHT-O'-WAY O gauge rail for the past fifteen years.

18 feet (6 lengths).. $13.50 plus $1 shipping (4 or more postpaid)

LARGE SSAE FOR LIST
O FLEX-RIGHT available in October

RIGHT-O-WAY P.O. BOX 25735 L.A., Calif. 90025

CANADIANS

Stop in and see one of the best supplies of narrow gauge and short line parts in Canada all at super low prices.

- We carry all the popular lines
- Everything for the scratchbuilder
- Micromotors and gear heads
- New and used brass in stock
- Mail order service available
- Send stamp for list of lines carried and brass

DENOMME'S TRAINS
84 King St. South
Waterloo, Ontario N2J IP5
across from Waterloo Square

Closed Mondays
Tues & Wed 12-6
Thurs & Fri 12-9
Sat 9-6
(519) 886-1461

Remember:
"We're not Number 1,
You Are"

The Toy & Hobby House
Scale Railroad Division

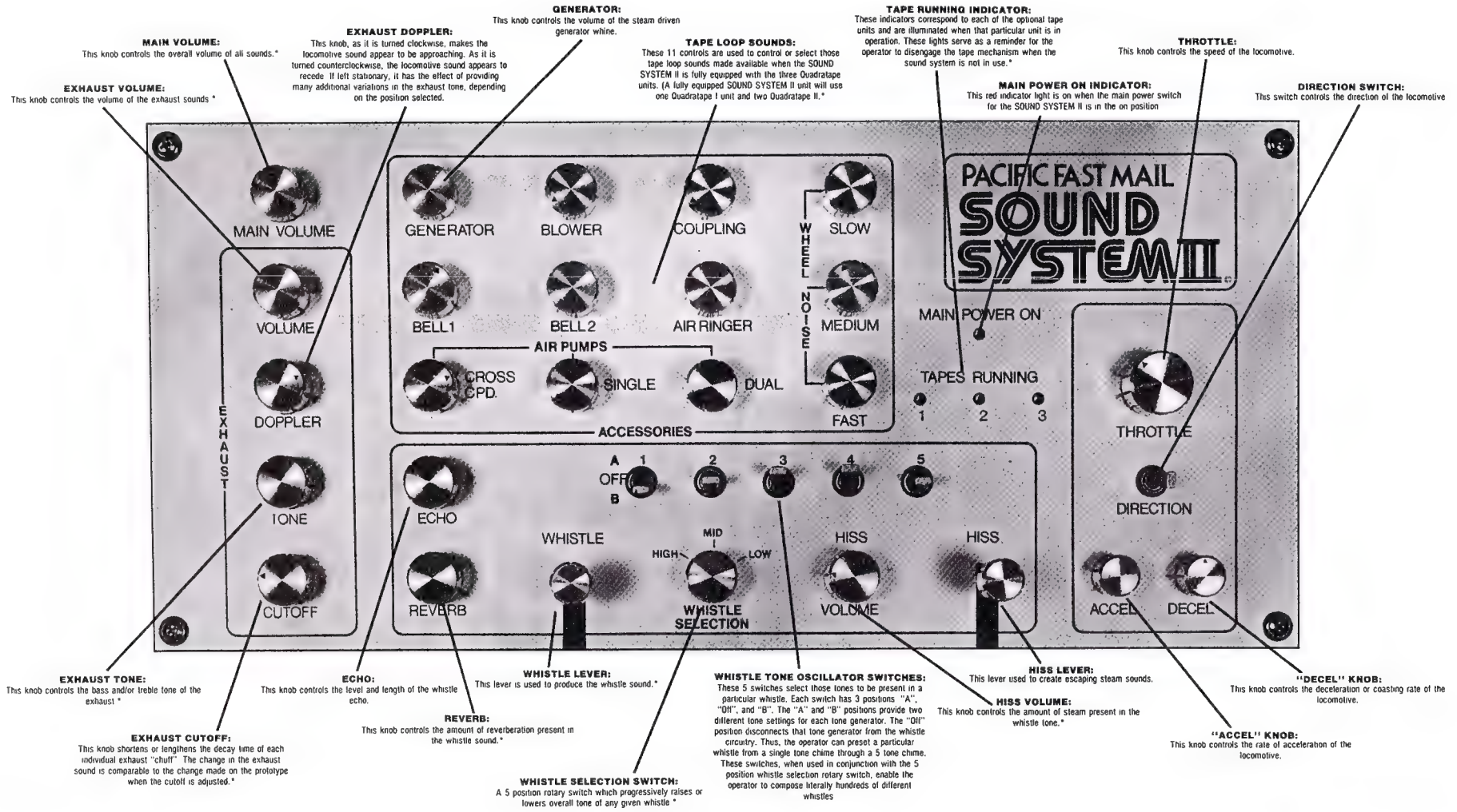
WE STOCK IT ALL, O to N Scale
Standard & Narrow Gauge
Over 250 Lines!

R-T-R • Kits • Built Ups • Books
Parts & Pieces • Custom Painting

YOUR KIND OF HOBBY SHOP

Stop In, Call or Write Us...
We're Open 7 Days A Week
We Accept Master Charge

The Toy & Hobby House
Scale Railroad Division
Phone: (312) 827-6550
1486 Miner Street, Des Plaines, Illinois 60016


MAIN VOLUME:
This knob controls the overall volume of all sounds.*
EXHAUST VOLUME:
This knob controls the volume of the exhaust sounds *
EXHAUST DOPPLER:
This knob, as it is turned clockwise, makes the locomotive sound appear to be approaching. As it is turned counterclockwise, the locomotive sound appears to recede. If left stationary, it has the effect of providing many additional variations in the exhaust tone, depending on the position selected.
GENERATOR:
This knob controls the volume of the steam driven generator whine.
TAPE LOOP SOUNDS:
These 11 controls are used to control or select those tape loop sounds made available when the SOUND SYSTEM II is fully equipped with the three Quadratape units. (A fully equipped SOUND SYSTEM II unit will use one Quadratape I unit and two Quadratape II.*
TAPE RUNNING INDICATOR:
These indicators correspond to each of the optional tape units and are illuminated when that particular unit is in operation. These lights serve as a reminder for the operator to disengage the tape mechanism when the sound system is not in use.*
THROTTLE:
This knob controls the speed of the locomotive.
MAIN POWER ON INDICATOR:
This red indicator light is on when the main power switch for the SOUND SYSTEM II is in the on position
DIRECTION SWITCH:
This switch controls the direction of the locomotive
MAIN VOLUME
GENERATOR
BLOWER
COUPLING
WHEEL NOISE
SLOW
MEDIUM
FAST
PACIFIC FAST MAIL
SOUND SYSTEM III
VOLUME
BELL1
BELL2
AIR RINGER
AIR PUMPS
CROSS CPD.
SINGLE
DUAL
MAIN POWER ON
TAPES RUNNING
1
2
3
EXHAUST
DOPPLER
TONE
CUTOFF
ACCESSORIES
A
OFF
B
1
2
3
4
5
ECHO
REVERB
WHISTLE
MID
HIGH
LOW
WHISTLE SELECTION
HISS
VOLUME
HISS
THROTTLE
DIRECTION
ACCEL
DECEL
EXHAUST TONE:
This knob controls the bass and/or treble tone of the exhaust *
EXHAUST CUTOFF:
This knob shortens or lengthens the decay time of each individual exhaust "chuff". The change in the exhaust sound is comparable to the change made on the prototype when the cutoff is adjusted.*
ECHO:
This knob controls the level and length of the whistle echo.
REVERB:
This knob controls the amount of reverberation present in the whistle sound.*
WHISTLE LEVER:
This lever is used to produce the whistle sound.*
WHISTLE SELECTION SWITCH:
A 5 position rotary switch which progressively raises or lowers overall tone of any given whistle *
WHISTLE TONE OSCILLATOR SWITCHES:
These 5 switches select those tones to be present in a particular whistle. Each switch has 3 positions "A", "Off", and "B". The "A" and "B" positions provide two different tone settings for each tone generator. The "Off" position disconnects that tone generator from the whistle circuitry. Thus, the operator can preset a particular whistle from a single tone chime through a 5 tone chime. These switches, when used in conjunction with the 5 position whistle selection rotary switch, enable the operator to compose literally hundreds of different whistles
HISS LEVER:
This lever used to create escaping steam sounds.
HISS VOLUME:
This knob controls the amount of steam present in the whistle tone.*
"ACCEL" KNOB:
This knob controls the rate of acceleration of the locomotive.
"DECEL" KNOB:
This knob controls the deceleration or coasting rate of the locomotive.

Now, model railroading's finest steam locomotive sound system is even better. Sound System II features over 1000 whistle combinations, improved exhaust, doppler effect, tape loop sounds with three different bells and air pumps, coupling and wheel Noises, and much, much more. Also available — Minisound I in built-up or kit form for the beginner in sound. This unit is designed to work with your existing power supply. Reservations are now being accepted on all our steam sound components — see your local PFM dealer. Sound System II, Minisound I, Multisound I, Quadratapes I & II and Monotape I are registered trademarks of PFM Industries, Inc. For further information send $1.00 (to cover the cost of handling and mailing) for our illustrated brochure and demonstration soundsheet, to Pacific Fast Mail, P.O. Box 57, Edmonds, Wash. 98020.

E.S.M.

4075 Pond Circle
Bethlehem, Pa. 18017

Phone
215-865-4791

• Visa, Master Charge, Lay-Away •

WESTSIDE "O" SCALE

B&O Q4B 2-8-2 with auxiliary tender 560
Sante Fe 2-8-2 with long tender 499
SP TW-8 4-8-0 fantastic detail 680
B&O P-7 4-6-2 pacific 525
B&O EM-1 2-8-8-4 articulated 799
D&RGW Conx tank cars On3 85
D&RGW Short Caboose On3 110

PRECISION On3

D&RGW coach #312 open or closed vest. 129
D&RGW coach combine #212 kit 96
42 ton Climax kit 365
Mich-Cal #2 Shay kit 325
East Broad Top hopper 86
70 ton triple offset side hopper "O" 72
D&RGW K-37 2-8-2 kit 590
On3 code 83 Flex Track 120 ft. 120
Ore car kit working side dump 25

IRON HORSE MODELS

D&RGW K-37 2-8-2 very detailed On3 975
Climax 42 ton w/loggers caboose On3 730
D&RGW K-27 2-8-2 #456 kit On3 675
Ma & Pa 2-8-0 "O" by Kodama 789
NCNG #5 2-6-0 On3 by Kodama 624

CUSTOM BRASS

Uintah #50 or #51 2-6-6-2t On3 795
PRR BB-1 electric "O" 480
PRR GG-1 electric "O" .....coming
J & L tank car "O" .....coming

PFM

D&RGW UTLX Gramps frameless tank car On3 125
D&RGW UTLX narrow frame tank car On3 135

SUNSET

N.Y.C. K-5 Pacific 4-6-2 "O" 470
E.B.T. Mike 2-8-2 On3 425
USRA Heavy Mountain 4-8-2 "O" 470

STRUCTURES AND KITS "O" & On3

Yorke 3 stall roundhouse kit 81
Yorke Victorian building kit 35
Yorke Brick store kit 32
Yorke Hillside Cabit kit 41
Durango Pres RGS Plow Flanger 02 On3 75
Durango Press RGS Drag Flanger 01 On3 43
Durango Press RGS Rotary Plow #2 On3 179
Wheel Works Ford stake body 16
Grandt Line D&RGW drop bottom gon On3 30
Simpson Westside Lumber flat car L/T 15
Simpson Westside Lu, wood water car L/T 27
Simpson D&RGW Short Caboose On3 L/T 35
Cooch Machinery Sales Building 44
Cooch 2 Railroad Shanties 19
Northwest Car Co. D&RGW 30' Reefer and Stock car Assembled and ptd Fantastic 41
San Juan D&RGW 62' Howe Pony Truss 2 for 47
Mineral Belt Vols #I or II each Sundance 36
Articulated Locos of North America Sund. 36

rail-scene

SSAE for Brochure

Something new from Detail Associates

rail-scene This is a modular system composed of 12 different urban and rural scenes that link in any combination to make continuous custom backdrop. Alternate details and overlays are provided to alter the basic modules. Available now in HO scale (22" long) for $5.98 each, and also N scale (11" long) for $3.98 each . . . Check your local Dealer.

FARMTOWN #8 combined with WOODS #10 with MOUNTAINS #12 behind

DETAIL ASSOCIATES

BOX 197 SANTA MARIA CA 93456

Logging Prototype Photo-Plan Packs©

detailed exterior drawings of western prototypes . . . more coming too!

West Side Lumber:
car & carpentry shops .....$ 5.95
woods camp. Reynolds.....5.95
portable pile driver.....4.50
Dolbeer donkeys.....6.50
Mill circa 1900.....5.95
two stall enginehouse.....1.95
"new" enginehouse (1940).....4.95
twelve cabooses.....9.00
dispatchers office, whse 3.95
cord & block cars (4).....2.95

Michigan-Cal:
Pino's two stall enginehouse 1.95
Pino Grande mill ca. 1920.....5.95
Graeagle Lmbr. enginehouse.....2.95

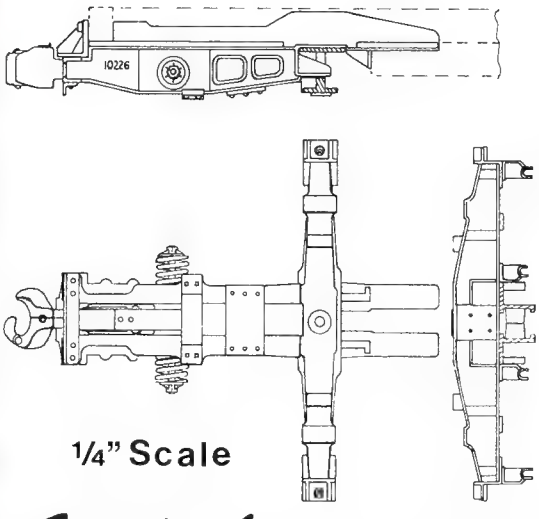
At your dealer or direct from us.
1980 Catalog & Narrow Gauge Manual (8th ed.) soon

SIMPSON

Manufacturer of scale model railroad kits and accessories

P.O. Box 256
Smith Flat, CA 95727

NEW— for D&RGW HIGH-SIDE GONDOLAS



1/4" Scale

Economy Draft Arm with Cardwell Draft Gear and Modified A. S. F. Cast Steel Bolster

Over 30 Pieces Cast in Styrene and Delrin.

№120 $5.50
(plus $1.25 – shipping)

Send 25¢ and S.S.A.E. for complete list of many other items in O,S,HO and N scales

Grandt Line PRODUCTS, INC. 1040-B Shary Court, Concord, CA. 94518

BOOKS

RAINBOW ROUTE; Sloan & Skowronski – with authors inscription $35.00
Detailed History of SRR, SG&N & SN, 415 photos, 19 O scale plans, maps, 416 pp.

SILVERTON RAILROAD CO'S. — Sloan $3.75
Short history SRR • SG&N • SN, 13 HO plans, maps, 52 pp.

BRASS PHOTO ENGRAVINGS

	HO	S	O
2 truck RGS Galloping Goose	$15	$20	$30
3 truck RGS Galloping Goose (both bodies)	$15	$20	$30
Silverton Northern "Casey Jones" railbus	$10	$20	$20
DSP&P Mason Bogie complete kit		$90	
D&RG #1 "Montezuma"	$20		$40
2 foot gauge Hinkley or Portland O • 4 • 4t	$20		$40
2 foot gauge Baldwin 2 • 4 • 4 • T B&SR6, SRRL8	$20		$40
2 foot gauge SR&RL 23-24 2-6-2	$20		$40
C&S 57-62, 63-70, 4-10 cabs & tenders	cabs $5 each	$10 ea	
D&RG 346, 318, T-12, C-21, RGS cabs & tenders	Tenders per road set of 3 or 4		
SN 3, 4, 34 cabs & tenders; Colo., Mid. cabs	$15	$30	

	N	HO	S	O
Westside Lbr. Co. Locos & cars		$2		$4
Colorado Work Cars (white)		$2		$4
Pre-1906 Colo. Locos (mixed gold & white)	$2	$4	$4	$8
D&RG – Mears roads freight cars 1870-1921	$2	$2	$4	$4
South Park – C&S freight cars 1872-1942	$2	$2	$4	$4
Two 1883 D&RG Billboard Reefers	$2	$2	$2	$2
Fancy Gold Passenger Cars all NG		$4	$8	

Catalog & Lettering Guide $1.50

ROBERT SLOAN 30 E. Pleasant Lake Road, St. Paul, MN 55110

BRASS IN STOCK

IHM Climax $875.00
IHM Rio Grande K-37 $1150.00

TURNOUTS: O¼ AAR, On3, On2 weathered Rail Stub & Split Types.

¼AAR New! 3 way Stub, Wye, Rt. Left Code 83, 100 Rail.

ON3 3 way, Rt, Left, Wye Code 70, 83, and 100 Rail.

ON2 Rt, Left, Wye Code 70, 83 Rail.

¼ AAR 3 Way Stub $24.95
ON3 3 Way Stub 19.95

LEETOWN
On3 Workmotor kits $ 87.50

PRECISION SCALE CO.
On3 Climax kit 345.00

Coming:
IHM Uintah #50,51 Sumpter Valley 2-6-6-2

Franchised IHM Dealer
Large SSAE for list
Calif. Resident please add 6% Sales Tax

ROGER'S LOCOMOTIVE SHOP
P. O. Box 555
Homewood, CA 95718

SUNSET MODELS

USRA 4-8-2 Heavy $575.95
NORFOLK & WESTERN J 4-8-4 $615.95

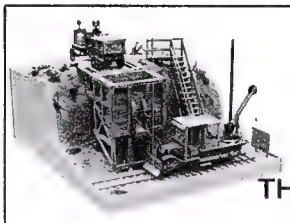
WESTSIDE MODEL COMPANY

HOn3 class A Climax $ 79.95
HOn3 D&RGW C-16 #271 $218.98
HO B-1 Shay $375.95
HO Class A 20 ton Shay $235.95
O Santa Fe 2-8-2 #3160 $595.95

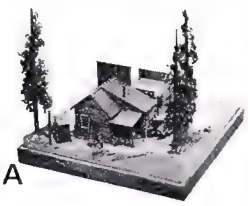
We stock complete lines of Precision, Kemtron, Calscale and Grandt Line detail parts in O, On3, HO and HOn3.

Mail orders—Cash, check or Master Charge or Bank Americard. Number and expiration date required on Bank Cards.

Roy's Train World
1033 S. Country Club Dr.
Mesa, Arizona 85202
1-602-833-4353



The
Scale Model Weathering Company
presents
Volume II
THE ART OF THE DIORAMA
by Gary Nash and Mic Greenberg



This booklet covers all aspects of building a diorama or display, such as • Generating Ideas • Design • Buildings • • Scenery • "Clutter" • and Finishing Touches. Plus more pages, photos, and details than Volume I. $5.00 plus $.50 postage and handling.
Volume II Color Pack: six 3x5" photos offered at $4.00 plus $.25 postage and handling.

At your hobby shop or direct by sending check or money order to:

The Scale Model Weathering Company
Box 1310 • Pacifica, California 94044

Vol. 1 (Weathering Techniques) at $5.00 plus $.50 postage & handling, Vol.1 color pack at $4.00 plus $.25 postage and handling, both still available.

NARROW GAUGER'S
Parts – Kits – Decals

• Operating HOn3 layout •
• Can Motors/Flywheels •

Come pay us a visit!

Tu–Fr 10-9
Sat 10-6, Sun 1-5

THE TRAIN EXCHANGE
70 Hilliard St.
Manchester, Conn. 06040
(203) 646-0610

RIP TRACK

$2.00 for 15 words or less, name and address free. Additional words .10 each. Ad must be paid for in advance. Riptrack deadline is the 15th of the second month preceding the month of publication, i.e. March 15 for the May issue.

Please type or print your ads neatly. Thanks.

NEW ITEMS in stock include Hallmark's Classy MKT Mogul $150., WMC Sp #1, 9 & 18 all mint $450 all three, KTM Porter Mogul factory painted 7 colors only 50 imported $190. PFM D&RGW K-27 Hi-Grade run, New $275. Hallmark Frisco #182 4-4-0 $120.00 Send post card for free list. Illinois Model R.R. Museum, 207 Warren Ave. Rockford, IL 61107

FOR SALE: Lambert C&S 2-6-0 in HOn3 needs good home. Owned by **GAZETTE** staffer, it has only been looked at occasionally. No time to operate! Runs well, and is priced right. $150.00. Good conversion material Charlie Getz, 845 Ridge Ct., South San Francisco, CA 94080. (415) 952-2127

WANT: Scenic Architectural Materials Trees; #120 Large Spruce, #121 Medium Spruce, #122 Small Spruce, #131 Small Pine. New boxed trees only. Offering $5.00 US per box. Gerald White, Box 1155, Barrhead, Alberta, Canada, TOG OEO.

WANTED: Old Shays: International, Austin, PFM C-3, 90-2, Flywheel. Reward for solid leads too! Charles Crehore, 100 W. Washington, Phoenix, AZ 85003

CARSON CITY RAILROAD ASSOCIATION 6th Annual Railroad Show, Dec. 1, 10 AM - 5 PM Silver City Mall, Fairview Dr. & Highway 395 So. Exhibits: Live Steam, RR Artifacts, Scale Models, Dioramas. Info: (Mr.) Jan C. Benson, 402 So. Division St., Carson City, Nev. 89701 (702) 882-8896

FOR SALE: Display cases, wall heralds, railroad wall plaques, Badges, Big Bold Railroad Buckles. Remover. Write today. R.T. Smith, 1611-G Oakwood Ave., Akron, OH 44301

CUSTOM STRUCTURE BUILDING: All types. Engine Service facilities, bridges, town, industrial and railroad wayside structures. HO and O kit building service offered (Campbell, Fine-Scale, etc.). Send 50¢ for illustrated brochure to Brums Detail House, 16 High St., Peterborough, NH 03458.

CDS Lettering has sets for narrow gauge-WP&Y, DSP&P, UPD&G,D&RG. Also 150 sets for standard gauge. Send $1 to Larkspur Line, P.O. Box 9283, Altavista Terminal, Ottawa Ontario, K1G3T9. Request HOn3 sample and listing.

Packet of over 30 old papers of the Rio Grande Southern R.R. including train and engine forms, a dispatcher's 24-hour train record sheet, etc. All for only $9.50 postpaid. Colorado Railroad Museum, Box 10, Golden, Colo. 80401.

WANTED: **FINELINES, SLIM GAUGE NEWS**, original/zeroxes. Books on Logging or Colorado Narrow Gauge and HO/HOn3 Brass geared locomotives. Have some older FSM, SSltd, **GAZETTE** for trade or sale. Frank Markovich. 1457 So. Mayfair, Daly City, Calif. 94015.

FOR SALE: On3 D&RGW all mint brass: PFM T-12 4-6-0, $450. Westside C-21 2-8-0, $350 (including 87 prototype photographs), IHM Class 42 4-4-0, $550. CB Long Caboose, $70. Westside Wheel & Tie car, $25. Paul Garwig, 5 Montague, Trenton, NJ 08628.

WANTED: On3 MAX GREY "Slim Princess" SP #18 State price and condition. Bill Reckert, Box 605, Cucamonga, CA 91730, (714) 987-1314.

WANTED: **GAZETTE** Vol. 1, #5 and 6. For Sale or trade: **SLIM GAUGE NEWS** Vol. 4, #1 thru 4. Rob Koenig, Site 1, Box 2, S.S.1. Kimberley, B.C., Canada V1A2Y3.

FOR SALE: IHM On3 K-37 new issue, never run $950 cash. G. Matzinger, 2127 Hoxie Ave,. Richland WA 99352

CUSTOM ON3 K-27 KITS – the last remaining 4 kits of limited and numbered production run of 24 units. Kits feature: Completely assembled and tested lost wax cast frame and mechanism. Runs like a watch. Precision ball-bearing micro-motor drive by Grandt Line made specifically for these kits. key-locked quartered drivers. Sprung frame, not equalized! Castings by Backshop including several made especially for this kit only and not commercially available. Complete cab interior. Over 50 chemically milled parts for superstructure and tender including pre-rolled boiler, cab with operable doors and windows, and functional coal doors on tender. The only existant model of a K-27, kit or otherwise, with correctly tapered rear boiler course and accurate tender rivit pattern. Kit is designed to avoid assembly aggravation but knowledge of soldering techniques is essential. This kit is the result of a five year effort by a group of ON3 modelers and manufacturers determined to produce the best K-27, without the design errors, assembly and running problems associated with various imported versions. Not a commercial venture, therefore no profit motive. Only 24 sets of parts made. Four of the original subscribers have declined reservation, and these remaining four units are available for sale at $545.00 per kit prepaid U.P.S. Samuel E. Taylor, 50 Oakway Rd. Timonium, MD 21093 phone evenings (301) 252-7565. If no answer, call Roy Brakmann (301) 465-5506 evenings only please.

FOR SALE: On2 Engine SR&RL #8. C. Morse, Jr., Box 758, Wareham, MA 02571

FOR SALE: On2 SR&RL #6 SR&RL #1 0-4-4T unpainted. C. Morse, Jr., Box 758, Wareham, MA 02571

FOR SALE: On2 WW&F Milk/Reefer Car. C. Morse, Jr., Box 758, Wareham, MA 02571.

WANTED: Original copy or reproduction of Blackhawk's 8mm version of "Trestle's of Ophir". Richard Yates, 17 North Spring St., Meriden, Conn. 06450

Hon3 PFM Sumpter Valley 2-6-6-2. Painted, but not weathered. Paint job so, so. Once owned by Paul Scoles. Contact Jim Finnell, P.O. Box 1836, Lynnwood, WA 98036. $200.00 firm. (206) 775-3526

WANTED: Gazzano scale models painted figure sets. Will pay $25 for set of 6 Postpaid. John Martin, 1923 West 11 St., Brooklyn, NY 11223.

WANTED: to buy or rent — March, 1976 **GAZETTE**. Need info. therein on type A Climax. Keith Douglass, 52 Wylly Ave., Savannah, GA. 31406 (912) 352-8808

TRADE ONLY: **FINELINES, SLIM GAUGE NEWS, NARROW GAUGE NEWSLETTER** and **GAZETTE**. My list of duplicates for your list. Jim Brown, 15367 S.E. 22nd Pl., Bellevue, WA 98007

FOR SALE: Logging locomotives. United B-2 Shay painted $275., United 2 truck Heisler $245., United B-3 Shay painted $275., United 2 truck oil burning shay $275., FED 0-4-0t $60., United class C Climax $275., NWSL 12 ton VB Climax $115., NWSL 15 ton TB Climax $115., Westside class A Climax with WF & VB $115., Kidder 0-4-0 Plantation switcher $35., Troller TRA 1001 Power System $64.95, Lambert #6 turnouts $4.90, #8's $5.25. All freight prepaid. R. Corr P.O. Box 239, New Hartford, NY 13413, Phone (315) 724-4959

SALE: PFM HO 65 ton Heisler $300 Westside Kelly Island Shay HOn3 $210. Railroad Equipment, 6701 Rexford, Bakersfield. CA 93309

BOOKS: Write for list, Most current publishers at good discounts. Railroad Equipment Dept. NG&SL. 725 Fullerton Dr. Turlock, CA 95380

WANTED: Lionel Accessories, Transformers, What Have You. Sell Suydam, Pacific Electric Traction, James Reno, P.O. Box 13311, South Lake Tahoe, CA 95702

NEED: **GAZETTE** May 1976 (Vol. 2#2), Sept. 1976 (Vol. 2 #4). Have early **GAZETTE**s to trade. John Engstrom, Box 696, La Mesa CA 92041.

FOR SALE: On3 4-4-0, Northwest Short Line Baldwin 8-18C, spartan series, never used - death in family, best offer. Don Wilke, 6844 Highland PL., Worthington OH, 43085.

FOR SALE: Custom Brass On2 SR&RL combine, mint. $100.00. George Konrad, 5 Terri Rd., W. Peabody, MA 01962

FOR SALE: On2 Engines SR&RL #6; SR&RL #1; WW&F #7. C. Morse, Jr., Box 758, Wareham, MA 02571

FOR SALE: ON2 SR&RL pass. coach #22, painted w/truck & couplers. C. Morse Jr., Box 758, Wareham, MA 02571

FOR SALE: On2 WW&F Reefer/Milk car - painted w/trucks & couplers. C. Morse JR., Box 758, Wareham, MA 02571

FOR SALE: On3 Balboa C-19 Painted & Weathered, Test run only $425. Milton Moberg, 1246 Tally Ho Trail, Hubertus, Wisc. 53033

FOR SALE: HOn3 PFM K-28, mid-60's run, $190.00. Peter S. Barney, 567 Rockdale Ave., New Bedford, MA 02740. (617) 996-0174

FOR SALE: On3 Tomalco CONX #5 brass tank, new, $30. Durango Press flanger kit, $40. Bill Martinsen, 3826 Bellwood Dr., Norman, OK 73069

FOR SALE: Sn3 PFM C-16, new, $225. Tomalco C-16 tender shell, $15. C-16 cab, $15. Bill Martinsen, 3826 Bellwood Dr., Norman, OK 73069.

FOR SALE: HOn3 and HO. MEW CM 2-8-0 and 0-6-0. Key C-18. SAE for list. Bill Martinsen, 3826 Bellwood Dr., Norman, OK 73069

FOR SALE: FED 1910 4-4-0 HOn3 as per Scoles-Shay, micro-motored, parts included, unfinished, $150. Kemtron C-16. unassembled $120. Unimat SL, 3 jaw chuck, cutters, vise. $300. All prices flexible and Canadian. Chuck Johnstone, 9215 70 St., Edmonton, Alberta, Canada, T6B 1W7

WANTED: Copies of **FINELINES**, especially issue containing finescaling of Atlas F9. List specifics. Alan Vining, 2648 Camille Dr. NE, Atlanta, GA. 30319.

FOR SALE: Balboa On3 C-19, mint condition, original run/box $450. Pilling RGS #40 domes for C-19 $20. Call for details on an On3 K-27 kit for $525; that's right $525!! Ray Priester, 12 Bascom Place, Staten Island, NY 10314, (212) 698-5405

FOR SALE: **GAZETTE**s, in mint condition. SSAE for list. Fred H. Voelcker, Jr., 7830 Edgewood Road, Pasadena, Maryland, 21122

STOLEN: The following model railroad items were stolen recently in the Reno, Nevada area. If you have any information regarding these items please contact Det. Ceasar Dotta at the Washoe County Sheriffs Dept., So. Sierra St., Reno, NV. 14 Pacific Traction HOn3 miniature railroad custom built & painted cars w/trucks & couplers, D&RGW. 7 Westside Model Company HOn3 Tank Frame & Frameless cars w/trucks & couplers custom painted and decaled "Gramps". 4 NORTHWEST SHORT LINE HOn3 O&W Passenger cars, w/trucks & couplers. Custom painted and decaled, Bitter Creek R.R. 1PFM D&RGW HOn3 Passenger Car (5) set, closed vestibule. Custom painted and decaled D&RGW. 1 BALBOA D&RGW HOn3 Passenger Car (4) set. Custom painted and decaled, D&RGW. 2 PFM Mason-bogie 2-6-6T HOn3, custom painted by VanWingen. 1 PFM Mason-bogie 2-8-6T HOn3, custom painted by VanWingen. 1 Balboa HOn3 Galloping Goose custom painted & decaled, D&RGW. 2 Balboa HOn3 Shay Locomotives, one custom painted & lettered for Bitter Creek Railroad. one unpainted Brass. 2 Westside Carson & Colorado Caboose, custom painted & lettered for Bitter Creek RR. 12 WESTSIDE HOn3, long caboose custom painted and lettered for Bitter Creek Railroad w/constant lighting. 6 WESTSIDE HOn3 Short Caboose custom painted & lettered Bitter Creek Railroad. 2 PFM C&S 2-6-0 Locomotives HOn3 custom painted and decaled C&S. 2 PFM C&S 2-8-0 Locomotives HOn3 custom painted & decaled C&S. 1 Westside HOn3 2-8-0 custom painted (movie colors) decaled D&RGW. 1 PFM K-27 HOn3 custom painted (dark green boiler) decaled D&RGW. 1 PFM K-28 HOn3 custom painted (dark green boiler) and decaled D&RGW. 1 Westside C-25 HOn3 custom painted (dark green boiler) and decaled D&RGW. 1 Westside C-25 HOn3 unpainted brass. 4 Westside K-27 (Compound/slide /modern/slant) custom painted & decaled D&RGW w/constant lighting & couplers, (Dark green boiler). 1 Westside K-27, slant type unpainted brass. 3 Westside C-16 (#268,2 #278,1) unpainted brass. 1 Westside T-12 custom painted & decaled D&RGW. 1 Westside T-12 unpainted brass. 1 Westside SP#1 custom painted & decaled Bitter Creek Railroad. 3 Westside 2-6-0 (SP) #8, 9 & 18 custom painted & decaled Bitter Creek Railroad. 1 Westside N.C. #8 unpainted brass. 3 Lambert C&S custom painted & decaled for C&S. 1 Sparten 2-6-0 custom painted & decaled Kilt & Pipe Railroad C. 1 Durango Press D&RGW Rotary Snow Plow custom built. 1 Rio Grande HOn3 spreader, custom built. 2 SOHO HOn3 D&RGW business car Edna, custom painted & one decaled for D&RGW and one for Bitter Creek. 1 SOHO HOn3 D&RGW passenger car unpainted brass. 2 Westside D&RGW long caboose unpainted brass. 1Westside K-36 HOn3 unpainted brass. 1 PFM Sante Fe, HO 2-8-0 unpainted brass recent run. 1 PFM Sante Fe. HO 2-8-0 custom painted decaled Kilt & Pipe RR. 1 GEM Wabash-mogul HO custom painted decaled Kilt & Pipe RR. 1 GEM Ma-Pa HO consolidation custom painted & decaled Kilt & Pipe RR. 1 Southern Pacific HO 2-6-0 custom built and painted decaled Kilt & Pipe RR. 1 PFM 'Centennial' HO set (UP 4-4-0, CP4-4-0) unpainted brass. 2 PFM V&T #20 HO custom painted, decaled V&T. 1 GEM Reading HO 4-4-0 Camel back unpainted brass. 1 GEM B&O Dockside HO 0-4-0 unpainted brass. 1 Hallmark Colorado Midland HO 2-8-0 unpainted brass. 1 Mantua HO 0-4-0 slope back tender custom built and painted decaled K&P RR. 1 MDC SP HO, 0-6-0 custom built and painted decaled K&P RR. 1 Alco Pennsy Ho electric custom painted & decaled Prr. 1 Suydam traction car HO custom painted and decaled Detroit Union Transit. 4 Hallmark Caboose Ho unpainted brass. 1 PFM decapod HO tarnished unpainted brass. 2 PFM V&T caboose HO custom painted & decaled V&T. 1 Westside Yosemite caboose, HO, custom painted decaled Yosemite RR. 4 LaBelle custom built and painted passenger cars, HO, decaled K&P RR.

FOR SALE: Kemtron Shay Kit, Micro-Mo Drive, Pilling Drivers - $235.00. NWSL On3 4-4-0, Pilling Drivers, Smooth Domes - $220.00 CB On2 Portland Forney, Nickel Silver Trailing Wheels - $285.00. Grandt On3 Drop Bottom Gon Kits, One opened, complete - $20.00. One sealed, $28.00. On3 Dome Sets - C-16, C-18, C-19, C-21, C-25. On3 Driver Sets - C-16 style - 35", 36" 37" diameter. John E. Pilling, Jr., P.O. Box 21, Abington, MA 02351, (617) 878-7358

WANTED: Photos of Braden Copper 30" gauge Whitcomb BB 60 ton endcab, Vulcan 70 ton BB centercab both used on FC Rancaugua al Teniente in central Chile, also cars, Shays, scenes, from same, will trade photos, dims of 30" lines Taiwan, Korea and Greece. John R. Cummings, P.O. Box 2250 USAEDME Winchester, VA 22601

FOR SALE: Balboa, HOn3 class A Shay, firebox, closed cab, complete detailed, Sagami motor w/upper worm and worm gear replaced for very slow operation, $225.00 ppi, Bruce G. Eaton, 106 France Ave. So., Minneapolis, MN 55416

FOR SALE: Relics of the Gilpin Tramway and Gilpin Railroad, small paper forms used by the crew to record cars picked up at various mines. various dates, 75¢, 3 for 1.50, plus postage. Colorado Railroad Museum, P. O. Box 10, Golden, Colo. 80401

FOR SALE: Gilpin Railroad freight memos, some showing cars by number for transfer to and from C&S three-foot cars to the two-foot ones. $1, or 3 for 2.50. Colorado Railroad Museum, P.O. Box 10, Golden, Colo. 80401

FOR SALE: Sunset On3 RGS #74 (w/Slow Speed Kit) 370.00, D&RGW 278 300.00, PFM Long Caboose 0540 70.00, D&RGW Water Car 50.00, CB TCX Tank 60.00, IHM K-37 #491 975.00. All items new/mint in original box. Cashiers check or money order to . . . . Rod Aszman, Box 152, 1013 S. Mt. Shasta Blvd., Mt. Shasta, Calif. 96067

"ATTENTION" Mine Owners and Railroad Contractors: If you would like to move those hard to reach Ore deposits for less operating revenue/ton, you should be operating a 24" Gauge ¼" scale Tramway system. Until December 31, 1979 we will be offering the following special on new 24" gauge equipment. 1-24" gauge O-scale 2-truck P.S. Co. Silver City Shay kit. 5-24" gauge O-scale 1-cord Grandt Line Ore car kits. 5-pair 24" gauge O-scale Coronado Gilpin trucks w/wheels. Sale Price, while the stock lasts; $335.00 Send all inquiries w/large SASE to RIC's ETCHINGS, 7805 Camrose Way, Sacramento, CA 95828. Calif. residents add 6% sales tax.

FOR SALE OR TRADE: US Hobbies SP AC-12. Unpainted, test run only. Includes extra drivers (8 axles), two gear boxes and over 40 Backshop detail castings. $1800.00 value. Will consider small O/On3 loco in trade. Lee E. Klaus, P. O. Box 19084, San Diego, CA 92119 (714) 462-8072

FOR SALE: 5 Kemtron C-16 driver pairs 1 Blind geared 2 blind plain - 2 flanged plain - 5 extra flanged tires - Drivers gauged to S gauge 1-6 piece cylinder set - 1 frame spacer. As lot only 39.00 pp. John Armstrong, 7451 Chardon Rd., Kirtland Ohio 44094 (216) 256-1317 to 12 pm.

FOR SALE: Model Masterpieces Como Roundhouse and 3 Extra Stalls Kits $35, Builder's plates from D&RGW 3604 and 1137, N&W Y6B, PRRGG1. Wanted: Builder's Plate from SP3001, Frisco "Coonskin" Number Plate, T&P Diamond Herald Plate. Ray Kenley, 11378 W. 73 Ave., Arvada, Colo. 80005

FOR SALE: PFM WP&Y 2-8-2 HOn3 custom painted & constant lighting $150.00. 68 other items on new list #13. Send post card for free list. All items sold on last issue's ad. Illinois Model Railroad Museum, 207 Warren Ave., Rockford, IL 61107, Larry Liston, Proprietor

Building Phillips, Maine Circa 1897.

An On2 Scene by Bob Brown

A new series to help you build your favorite scene.

Building a ¼ Inch Scale John Deere Tractor Store

Plans and Photos by Chuck Yungkurth
Model by Gene Deimling

CHANGE OF ADDRESS

Please send us your **GAZETTE** mailing label and your new address. If you don't have your mailing label send your name and both your old and your new addresses. When you move let us know as soon as possible. Our mailing list goes to our data service for processing about the 20th of the month preceding issue. Address changes received after that date cannot be processed until the next issue.

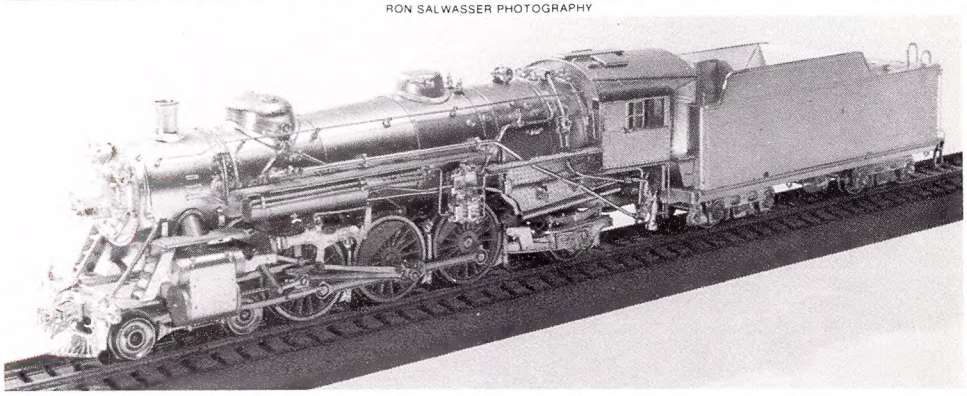
Key Imports Inc.

The Key to Quality

655 Redwood Hwy.
No. 165
Mill Valley, CA 94941

THE "USRA" LIGHT PACIFIC

RON SALWASSER PHOTOGRAPHY



Key Imports presents an all-time classic in steam locomotive design—the USRA "Light" 4-6-2. Used on many different roads, this design resulted in many variations over the years. HO Scale

A.

Abajo Depot 77
Al's Rails 74
Archey Creek Geology 73

B.

The Backshop 73
Robert C. Biersborn Limited 67
Broadmoor Hobbies 14, 66

C.

C. H. B. Models 77
Caboose Hobbies 8
Chooch Enterprises 79
Clear Creek Models 10
Clover House 73
Colorado Railroad Museum 13
Concept Classic Details 10
Conde, J. C. 78
Coronado Scale Models 16
The Crossing Gate 67
Custom Screen & Decal Co. 79

D.

Darwin Publications 15
Denomme's Trains 80
Detail Associates 82
Downtown Hobby 68

E.

E & B Valley Railroad 69
E.S.M. 82
Evergreen Hill Designs 72
Evergreen Scale Models 9

F.

Floquil 9

G.

Gazette 8
Gemini Scale Models 73
Gold Spike Trains 68
Grandt Line 82
Green Lantern Models 75

I.

Iron Horse Hobby Supply Center 13

J.

John's Train Shop 80

K.

K & L House of Wood 76
Keller Engineering 10
Key Imports 86
Keystone Locomotive Works 9, 68

L.

The Little Depot 13
Littletown Hobbies 80

M.

M. F. Kotowski 79
Magnuson Models 68
McLeod Rail Miniatures 58
Miniature Machine 10
Model Masterpieces 12

N.

N. J. International 2
National Motors 74
Northern Lights Enterprises 9
Northwest Shortline 78

O.

Oliver Steam Rail & Navigation 68
Original Whistle Stop 16

P.

Patco 72
Peninsula Hobbies 15
Period Graphics Supply Co. 68
Perles Pacific Products 13
Perry's Hobbies 78
Peterbuilt Locomotive 9, 80
Power Systems, Inc. 75
Pacific Fast Mail 81
Precision Scale Co. 6, 87

R.

Rail Art 68
Rail Craft 80
Rail Image 77
Rail Line Co. 73
The Railway Express Ltd. 77
Reed's Hobby Shop 61
Right-O-Way 80
Rio Grande Models 67, 79
Rittech 73
Rocky Mt. RR Club 13
Roger's Locomotive Shop 83
Ron's Art Graphics 14, 77
Ron's Car Shop 73
Roy's Train World 83

S.

S Gaugian 75
Sandy River Car Shops 67
Sango Model Railroad Works 70
Scale Model Weathering Co. 67, 83
Sequoia Scale Models 74
Simpson Products 82
Robert Sloan 83
South Park Productions 75
The Structure Co. 8
Sundance Publications 70
Sunset Models 43

T.

Tomalco 72
The Toy and Hobby House 80
Train Exchange 83
Troller Corporation 4

V.

V & T Shops 77
Vintage Reproductions 72

W.

Walthers Terminal Hobby 74
Western Guideways 78
Westside Model Co. 88

Y.

Thomas A. Yorke 11

PRECISION SCALE Co.

LOCOMOTIVES AND DETAILING PARTS

1120-A GUM AVE. WOODLAND, CA 95695 Phone: 916-662-6543

YOU WANTED 'EM . . . WE GOT 'EM . . . !

KITS! . . . KITS! . . . KITS!

O Scale - On3 - HO - HOn3 . . . IN STOCK

O Scale On3	SP TW-8 4-8-0	#15055
	D&RGW K-37	PK-16
	16 ton Shay	PK-7
	Mich-Cal #2 Shay	PK-13
	Silver City Shay	PK-3

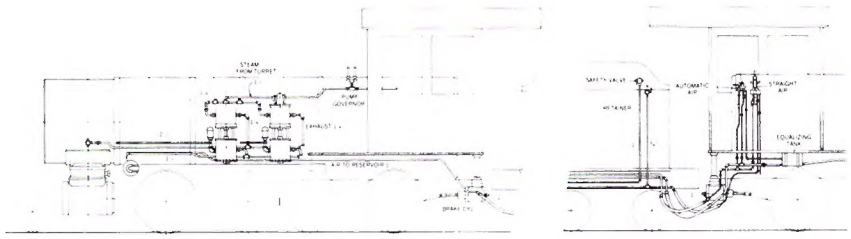
SEE YOUR DEALER, FIRST!

COMING SOON! PORTER 0-4-0

REDESIGNED KIT WITH NEW DRIVE BY GRANDT

Completely upgraded - Machined boiler More kit for your dollar! PK-1 w/Wood cab PK-2 w/Steel cab

DETAILING KITS! FOR AIR PUMPS - FEEDWATER SYSTEMS - BACKHEADS, ETC.



PIPING FOR DUAL 11" WESTINGHOUSE PUMPS (D&RGW C-16

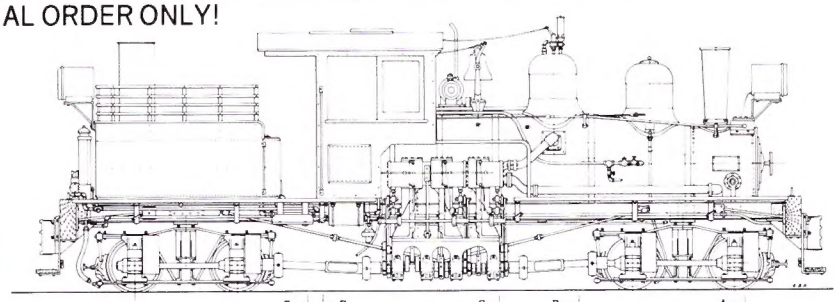
HO and O SCALE

HO PSK-3724 O PSK-9525 (9½")
HO PSK-3723 O PSK-9524 (11")

FINALLY! . . . The long-awaited 26 ton-3 cyl. - 2 truck Shay of the Santa Barbara Tie & Pole Co. in On3. Also, available in O standard gauge! Very limited run of assembled models by SPECIAL ORDER ONLY!

KIT NUMBERS:

PK-12 On3
PK-50 O gauge



© Copyright 1979 Precision Scale Co.

SANTA BARBARA TIE & POLE CO. No. 1
26 Ton Shay

We have been advised by the "EXPERTS" that our vestibule coach, advertised as #312, is actually #319! Order number is 15040. Open-end coach #312 (as built) is order number 15014

master charge THE INTERBANK CARD

VISA

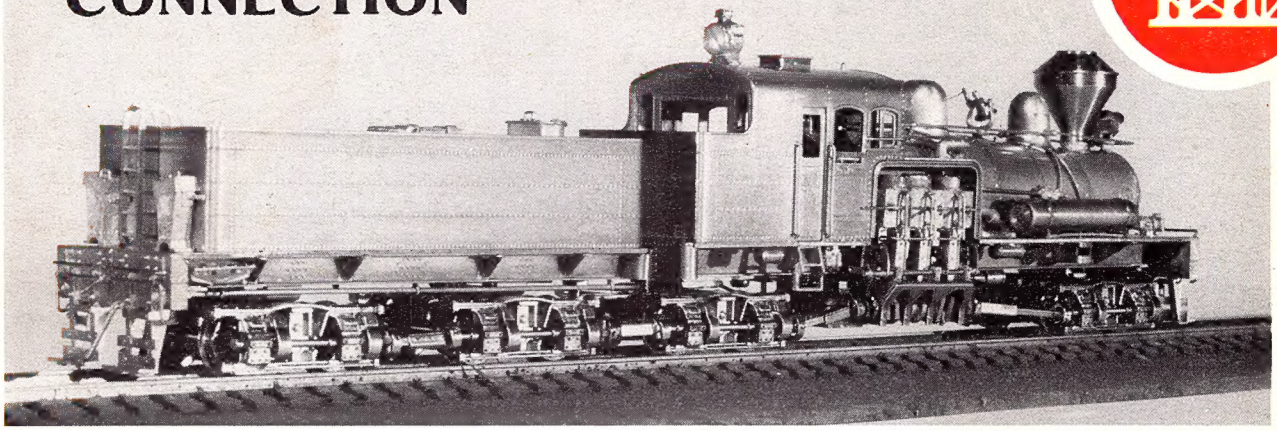
HO CATALOG #3 with alphabetical listings
$3.00 plus $1.00 postage (Cal. res. add 6% sales tax)

Precision Scale Co. INCORPORATED
HO HOn3 S-Sn3 O-On3
MAKERS OF FINE INVESTMENT CASTINGS AND LOCOMOTIVES

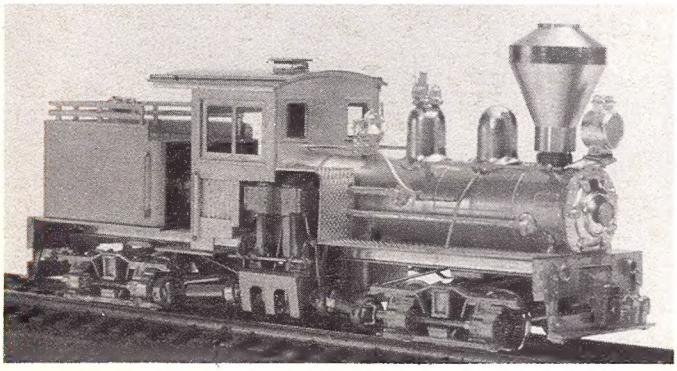
A. WILLEY

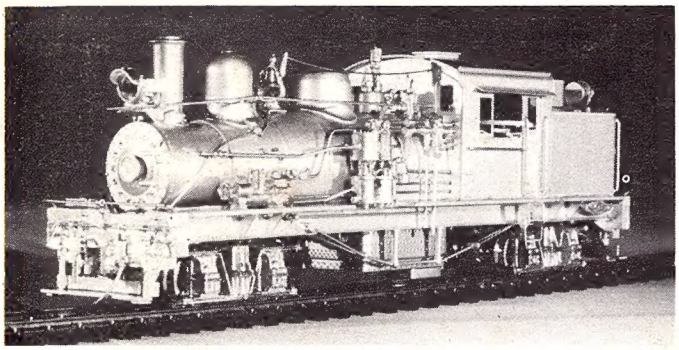
WESTSIDE MODEL COMPANY

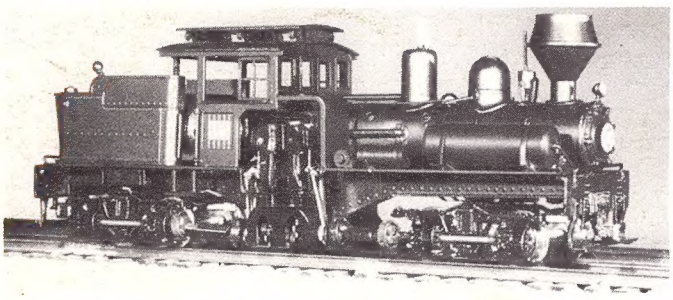
"THE SHAY CONNECTION"

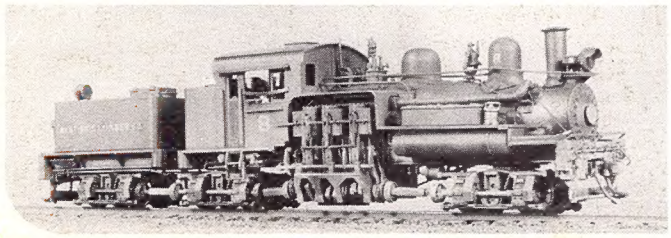


RON SALWASSER PHOTOGRAPHY









Sometime ago the Westside Model Company committed itself to building a full line of Shay locomotives for logging and industrial service. The game plan was to provide Shays of various sizes and gauges for any range of services.

Westside offers a 120 ton 4 truck Shay (**West Side "16"**) in HO gauge. Available in HOn3 gauge, this same engine is the **White Top Shay** and without a doubt, would be the most powerful Shay ever built for three foot trackage. This fall, Westside will have a 150 ton 4 truck Shay as used by the Norfolk & Western, and the Southern, the C&O, and Western Maryland . . . for those wanting the ultimate in geared pulling power.

Then on the other end of the scale there is the **MFK Shay** . . . in the 18 to 20 ton range for light, industrial and hard to get at operations. Available in both standard and narrow gauge, the latter is modeled after the **Kelly Island Lime & Transportation Company** Shay of 18 ton weight.

The B-1 and Bn-1 Shays constitute the mid-range Shay locomotive with three cylinders for maximum power. **The Pickering Lumber Company,** and **Spaulding Lumber Company** all had large Class "B" Shays of the standard gauge variety. With a weight of 50 tons and heavier the two-truck Shay in the narrow gauge configuration (Bn-1) was also used by a great number of logging concerns in the Pacific North West. The **West Side Lumber Company** was one of many owners of this type of heavy three foot locomotive.

The **Ali-San Shay** was of export nature and was used in the Orient in the Ali-San Forest. The Westside Model Company made this 18 ton engine available both in HO and HOn3 gauge. Extremely popular with modelers in both gauges this model is no longer in stock at Westside.*

The **Class "C"** or **C-1 Shay** represents a three truck Shay of 70-plus ton proportions for heavy grades and heavy trains. The C-1 was also a "mainline Shay" as it was geared for higher speeds. From the **Coos Bay** to the **Rayonier**, from the **Long Bell** to the **Brimstone Logging** companies, these engines could be found in regular service.*

The **West Side "number 8"** had many peers but few equals. It is one of the heavier narrow gauge Shays in existence and represents a high point in Shay construction. **Number "8"** was faithfully reproduced by the Westside Model Company and included such model innovations as the multiple gear reduction drive and the finest possible detailing for a commercially available model.*

*No longer stocked by WMC. May be still available at your Westside dealer.

P.O. BOX 99 • APTOS, CALIF. 95003